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The Early Glyptic of Tell Brak: Cylinder Seals of Third Millennium Syria

Matthews, Donald M.

Abstract: This book is the most comprehensive treatment of the art of Syria in the third millennium BS. It is also the first book-length publication of material from the British excavations at Tell Brak (1976-1993). It is a catalogue of nearly 600 seals from Tell Brak (more than ten times as many as are available from any contemporary Syrian site), combined with a general study of the comparative material. It is both a basic work of reference and a new synthesis of the Syrian Early Bronze Age. The Brak material is published with drawings and photographs and a full discussion of the designs, provenances and functions of the seals. About 900 seals of this date are known from other sources in Syria and northern Iraq. A comprehensive list arranged by style and date is provided. The chronology depends on a complex interaction of evidence from pottery and from seals which were imported from Babylonia. The most thorough recent discussion of this evidence is included, which enables the first detailed assessment of the development of Early Bronze Syrian art to be made. This shows how art contributed to the rise of civilization in Syria, and how Babylonian forms were selected and adapted several times in different Syrian contexts.

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Donald M. Matthews

The Early Glyptic of Tell Brak

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The author

Donald Matthews was born in Edinburgh in 1962 and educated in Scotland. He has excavated in Britain and in Jordan, Syria and Iraq, especially at Tell Mohammed Arab (1983–84), Tell Abu Salabikh (1988), Tell Brak (1984, 1990) and Tell Shekh Hamad (1993). He obtained a B.A. at Cambridge University in Archaeology and Anthropology (1983) and a PhD on Mesopotamian cylinder seals at Cambridge in 1988. Since 1990 he has been studying third millennium B.C. glyptic from Tell Brak at Oxford University. He is the author of «Principles of Composition in Near Eastern Glyptic of the Later Second Millennium B.C.» (Orbis Biblicus et Orientalis. Series Archeologica 8), Freiburg / Schweiz – Göttingen 1990, of «The Kassite Glyptic of Nippur» (Orbis Biblicus et Orientalis 116) Freiburg / Schweiz – Göttingen 1992 and of various scholarly articles and reviews.

Donald M. Matthews

The Early Glyptic of Tell Brak

Cylinder Seals of Third Millennium Syria



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PREFACE

This book is the result of a British Academy Post-Doctoral Fellowship, which I held at the Oriental Institute, Oxford in 1990-1993. The Ashmolean Museum provided me with a room and I used facilities also in the Computing Laboratory and the Institute of Archaeology of Oxford University. I wish to thank the staff of these institutions and of the Ashmolean Library, and especially Roger Moorey, Jeremy Black and Stephanie Dalley for their assistance during my stay in Oxford. My visit to Syria in 1992 was supported by the British Academy, the Seven Pillars of Wisdom Trust and the British School of Archaeology in Iraq.

The seals and seal-impressions of Tell Brak are now held in the National Museums of Deir ez-Zor and Aleppo in Syria, and in the British Museum and Ashmolean Museum in England. Professor and Dr Oates invited me to conduct the research and gave me assistance in Cambridge, and Dr Ali Abou Assaf gave me permission to work in the museums in Syria. I am much obliged to them and to the staff of the four museums, especially Assad Mahmoud, Hamido Hammade, Antoine Suleiman, Roger Moorey and Dominique Collon for access to and help with the objects in their care. Margaret Sax has been conducting a general study of the materials of cylinder seals, and she very kindly gave priority to the seals from Tell Brak and wrote the report on them which is included here (Appendix A).

I am grateful both to John Curtis and Helen McDonald whose drawings are included here, and also to the many people who have contributed drawings to the expedition records which have helped me to understand the designs. The cost of the photographs was supported by the British School of Archaeology in Iraq. The Ashmolean Museum supplied photos *gratis*. Some of the photographs were printed by Bob Wilkins. Museum photographs were used for objects in the Ashmolean and British Museums; photos of objects in Syrian museums were partly taken by the author and partly supplied by the Tell Brak Expedition.

In Berlin, Prof. Dr. Hartmut Kühne, Prof. Dr. R.M. Boehmer, Dr. U. Moortgat-Correns, Dr. E. Klengel-Brandt, Dr. Jan Meyer, Dr. R.-B. Wartke and Dr. S. Kulemann gave me help in various ways with access to material or help with problems. I owe a special debt to Professor Kühne for arranging my visit to Berlin and for allowing me to use the house of the Shech Hamad Expedition in Deir ez-Zor while I was working there. It was in discussions with him that the Early Bronze Age in Syria first began to make sense to me. He also arranged for his photographer Ulrich Runge to print the photo of impression 316. I was assisted in Deir ez-Zor also by Dominik Bonatz, Olivier and Mariagrazia Rouault, and by Guido Gualandi. On a visit to Oxford in 1994, Professor Stefania Mazzoni unravelled several mysteries for me and gave me a written text of her lecture which includes important information on Ebla. Professor Edgar Peltenburg kindly allowed me to refer to the interesting seal-impression which he has recently discovered at Tell Jerablus Tahtani.

For access to material from Hama I wish to thank Prof. Peder Mortensen, Dr Bodil Bundgaard Rasmussen and John Lund. Dr Jesper Eidem arranged a visit to Copenhagen to study this material and I am most grateful to him also for undertaking the difficult task of the seal inscriptions (Appendix B) and for other help. Professor Westenholz, Jeremy Black and Irving Finkel also helped with Assyriological and other problems.

I am particularly grateful to Roger and Wendy Matthews for their help with a visit to Cambridge. I would like to thank also St John Simpson, Astrid Nunn, Claudia Fischer, Tim Matney, Pirhiya Beck and Gudrun Colbow. Professor Edith Porada took an interest in this study in the last years of her life and I am only sorry that she did not live to see it completed.

Roger Moorey, Michael Roaf, Beatrice Teissier, Judith Weingarten, Stephanie Dalley and John Baines read all or part of the work and suggested improvements to it.

I wish to thank Hildi Keel-Leu, Othmar Keel and Christoph Uehlinger for publishing the work in the series *Orbis Biblicus et Orientalis* and for all their help. The Catalogue generated directly from my computer database. The map (pl. I) is the work of Keith Bennett of the Ashmolean Museum.

I owe much to the constant support of my parents. My greatest debt, as ever, is to Frances.

July 1996

Donald M. Matthews

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Plates

ABBREVIATIONS

Aleppo I	Hammade 1987	Fara	Martin 1988
Aleppo II	Hammade 1994	FI	Collon 1987
Amuq	Braidwood and Braidwood 1960	Gawra I	Speiser 1935
Ash	Buchanan 1966	Genouillac	Amiet 1957
Aulock	Von der Osten 1957	GMA	Amiet 1980
Ben-Tor	Ben-Tor 1978	Gubba	Ii 1988a
BM I	Wiseman 1962	Guimet	Delaporte 1909
BM II	Collon 1982b	Halawa II	Lüth 1989
BM III	Collon 1986a	Impronte	Mazzoni 1992a
BN	Delaporte 1910	Iraq IV	Mallowan 1937
Brett	Von der Osten 1936	Iraq IX	Mallowan 1947
Brussels I	Speleers 1917	Jebel Aruda	Van Driel 1983
Brussels II	Speleers 1943	Louvre A	Delaporte 1923
Byblos I	Dunand 1939	Louvre S	Delaporte 1920
Byblos II	Dunand 1958	Marcopoli	Teissier 1984
CANES	Porada 1948	Mari Ishtar	Parrot 1956
CDAFI 1	Amiet 1971 and Le Brun 1971	Mari Ishtar	Parrot 1967
Chuera 1959	Moortgat 1960	Mari Palais	Parrot 1959
Chuera 1960	Moortgat 1962	Mari Tresor	Parrot 1968
Chuera 1963	Moortgat 1965	Moore	Eisen 1940
Chuera 1964	Moortgat 1967	Mozan 1	Buccellati and Kelly-Buccellati 1988
Chuera 1973	Moortgat and Moortgat-Correns 1975	Newell	Von der Osten 1934
Chuera 1974	Moortgat and Moortgat-Correns 1976	Nuzi	Starr 1939
Chuera 1976	Moortgat and Moortgat-Correns 1978	Philadelphia	Legrain 1925
Chuera 1985	Moortgat-Correns 1988b	Sendschirli V	Von Luschan 1943
Collon Yale	Collon 1988	Suleimeh	Al-Gailani Werr 1992
Copenhagen	Ravn 1960	Susa	Amiet 1972
CS	Frankfort 1939	Tarsus II	Goldman 1956
Damascus	Kühne 1980 or Homes-Fredericq 1982	UE II	Woolley 1934
Diyala	Frankfort 1955	UE III	Legrain 1936
EGAZ	Boehmer 1965, fig. nos.	UE X	Legrain 1951
EGAZ no.	Boehmer 1965, 142-192, cat. nos.	VR	Moortgat 1940
		Yale	Buchanan 1981

I. INTRODUCTION

1. Syrian seals in the Early Bronze Age

Cylinder seals are the most important source of evidence on the art of Syria in the third millennium BC. Although sculpture and other art works such as decorative inlays have been found at a few sites, such as Mari, Ebla and Tell Chuera, we cannot trace the general development of Syrian culture in this material. Nearly every excavated site has yielded seals, and most seals can readily be assigned to particular styles. This provides us with an opportunity to explore the value of glyptic as an indicator of cultural development.

Tell Brak has produced very much more glyptic of the third millennium B.C. than any other published source of this period in Syria. Many of the seals come from secure archaeological contexts. This is unusual: more so, perhaps, than is usually admitted. The great majority of the known cylinder seals have no provenance; and of those which have been excavated, most are of little interest stylistically and come from insecure deposits. Tell Brak has produced designs of the finest quality and many objects come from floor deposits which give us information on how and when the seals were used. In this book the glyptic of Tell Brak is studied in relation to all of the cylinder seals of Early Bronze Age Syria which have survived.

Unlike southern Mesopotamia, Syria supported urban civilisation only in favourable circumstances. In the early fourth millennium, northern sites were not less culturally developed than southern ones, but by the Late Uruk period the civilisation of the south had spread over much of the Near East. Some Uruk traits spread in a penumbra around this area deep into Anatolia and even reached Egypt. This culture originated, so far as we can tell at present, in southern Mesopotamia, and its most important centre was at Uruk itself, both in population and in its organisation. This is shown by the unique architecture and sculpture of the site, and above all by the invention of writing. The details of the Uruk intrusion into Syria are controversial and need not concern us here, but at Habuba Kabira and Jebel Aruda in central Syria Uruk "colonies" were built with a material culture largely identical to that of the south. The existence of these sites has both economic and political implications, and the effect of Uruk culture on Syria was profound. For our purposes, the most important consequence was the replacement of stamp seals by cylinders in Syria, but it is probable that this followed from a change in how the use of seals was understood in society. We should expect to see some survival of Uruk social structures in locally adapted forms after the end of the Uruk intrusion.

In the early third millennium a pattern of small towns and villages without state structures seems likely in Syria. In eastern Syria and Assyria, the Ninevite V pottery culture used seal styles which have connections in eastern Iraq and Susiana. This pottery was decorated with fine painted or incised patterns. In western Syria at this time there was no equivalent major decorated pottery style which would enable sites to be easily recognised, and our picture of cultural developments is deficient except in Palestine, which had its own history owing to its proximity to Egypt. The shortage of information should not, however, lead us to believe that western Syria was less culturally developed than eastern Syria at this time.

In the middle of the third millennium cities developed all over Syria, culminating in major centres such as Ebla and Brak. At Tell Leilan in eastern Syria, there was a change in the glyptic and pottery styles at a time when the size of the city was greatly increased. The seals show new international connections, and a kind of pottery called stone-ware or metallic ware, technologically advanced but usually undecorated, was introduced. A similar ceramic transformation took place in the west at about the same time, with the arrival of the "caliciform culture" which included many painted pots. Unlike in the early third millennium, when pottery was decorated in the east and plain in the west, the situation was now reversed. Sculpture, which had previously been very rare in Syria, is now found at urban sites, beginning with the statues of "ED II" type from Chuera and continuing with the ED III sculpture of Mari and Ebla. Towards the end of this phase, around the boundary between ED III and the Akkadian period, cuneiform tablets first appeared in Syria, in the form of the archives of Tell Beidar, Mari and Ebla¹.

At the same time we have the first historical evidence for Sumerian relations with Syria, but the texts do not describe the military conquest of the north by the south². The monuments of Jebelet el-Beida (Moortgat-Correns 1972) in eastern Syria do, however, support the existence of an ideology of powerful kings in Syria like the one which is known in the south, and the bead of Mesannepada from Mari may represent some diplomatic relationship

1 Occasional traces of writing, such as seal inscriptions, are earlier, but we cannot be certain that they were made in Syria.

2 Eannatum fought a war with Subartu, but not necessarily in the north (Michalowski 1986, 136); the statements of Lugalzagesi are non-specific.

with Ur. The first convincing evidence for a major southern invasion comes in the reign of Sargon of Akkad, who claimed that Dagan had given him Mari and Ebla. This still does not imply conquest, however, or even penetration west of Tuttul (Tell Bi'a) on the Euphrates³, and no inscriptions of Sargon have been found in the north. There is evidence to support the permanent occupation of Assyria under Sargon's successors Rimush and Manishtusu⁴, but the stone bowl of Rimush from Tell Brak (Mallowan 1947, 27) could have been a diplomatic gift, like the Egyptian stone bowls from Ebla. Only in the time of Naram-Sin is there evidence for Akkadian rule in Syria, and then certainly only at Tell Brak, in the form of the Naram-Sin Palace which had the king's name stamped on the bricks. The arrival of the Akkadian state had no great effect on material culture in Syria, which continued much as it had before with stoneware in the east and caliciform pottery in the west. Only in sculpture and glyptic, and in a few tablets of the late Akkadian period from Brak and Mozan, is much Akkadian influence detectable⁵.

At the end of the millennium the Ur III kings ruled in Assyria and had close relationships with the shakkannakku rulers of Mari, but there is no reason to think that they controlled any part of Syria. There is evidence for a cultural hiatus before the reappearance of civilisation in the Middle Bronze Age, expressed in the abandonment of most sites in Syria, both in the east and the west. Texts become very scarce, but it is tempting to associate this hiatus with population movements of the Amorites in the south and the Hurrians in the north. Solid evidence on such questions unfortunately only becomes available in the Mari Period 200 years later, and it is quite uncertain how far the cultural changes which can be observed then should be projected back onto our period. After the time of the Uruk intrusion, there is little reason to reconstruct significant population movements until the end of the Syrian Early Bronze Age, with a few possible exceptions⁶.

The intrusion of the Hurrians on a large scale into Syria probably did not begin before the Post-Akkadian period at the earliest (cf. Wilhelm 1989, 7-13). No art or artefact types can be associated with such an intrusion, and we should not necessarily expect them to: "an alternative mode of life, fragmented and materially unproductive, was potentially always there, waiting to be resumed when the circumstances demanded" (Kemp 1991, 241). Hurrian names are first attested in the Old Akkadian period, but there is no clear evidence for their presence at Tell Brak at that time⁷. Naram-Sin conducted the first campaign by a southern king against a Hurrian ruler, and evidence for the Hurrian rulers of northern states multiplies thereafter, beginning with Talpuš-atili of Nagar (316), mainly in the form of seals and foundation inscriptions (Matthews and Eidem 1993). Hurrian personal names are first attested in large numbers in Syria in the Mari Period, but they were common in the NE Tigris region in the Ur III period (Wilhelm 1989, 10-13), and we cannot exclude the possibility of a major presence of Hurrians further west at that time.

The dominant factor in the history of Early Bronze Age glyptic in Syria is the stylistic influence of Mesopotamia. This was very strong at some periods, and weaker at others; Syria did not exert an influence back on Mesopotamia. This relationship is useful as evidence for relative chronology; but it means rather more. Syria had its own glyptic traditions from the beginning, and it is apparent that many of the features of civilisation existed in the north from a very early period. Why then were Mesopotamian artistic forms imported so readily? A historical explanation is not easy to make, because there is so little relevant written evidence. The shortage of information, and the problems involved in interpreting what does exist, renders any reconstruction which relies only on written sources very doubtful. A more interesting question, because it bears on how the inhabitants of the north themselves viewed the situation, is how southern culture was imported and adapted there. When the Syrians of the later third millennium adopted the Early Dynastic style instead of developing their own traditions, they were expressing something profound about their society and its dependence on foreign symbolism.

Like all art, cylinder seals combine a subject and an engraving style. In most times and places, both components look back to ancient models. The seal-makers probably did not know much about the history of their craft, but they would have known what were the immediately antecedent sources of their inspiration. The mixture of seal styles, of foreign and local derivation, would have been recognised and exploited by the local people in order to promote their own interests. Foreign motives and styles will have conveyed particular cultural values, and native traditions others; they will have been used in particular social contexts. A merchant might wish to show that he was a proper member of a trading network; an administrator might have to subscribe to a state ideology. Study of the cultural affiliations of seals gives us a sensitive indicator – often the most sensitive we have – to explore such artistic statements and to see how they were used to assist cultural development, through mechanisms either of inclusion, or, equally significantly, of exclusion.

3 Liverani 1993, 53.

4 Algaze 1986b, 134; Michalowski 1993, 82.

5 A few objects bearing royal names, such as the bronze bowls of Naram-Sin from Mari, and a duck-weight of Shudurul from Tishrit (Michalowski 1993, 82-84), indicate no more than some contact with the south.

6 Such as perhaps the Kura-Arax or "Khirbet Kerak" phenomenon.

7 Wilhelm 1989, 7-9. Note the occurrence of Hurrian names on the Mozan tablets, which may date to the end of the Akkadian period (cf. Michalowski 1993, 81-2).

Pictures should not be seen as secondary to texts in their expression of cultural values, but as a self-standing primary aspect of culture⁸. Works of art should be studied in the first instance on their own terms, as the products of compositional and technical decisions which were made according to certain rules. Investigation of these rules allows us to define styles and to show how different styles were related to one another, for example by the presence of common motives or common principles of composition.

The outcome is a narrative of what styles existed, where and when they originated, how they were adapted in new circumstances, what influences were admitted and which were rejected. Having established such a narrative, we are then in a position to address larger questions. Were foreign cultural goods sought only once or several times? Under what circumstances were foreign ideas acceptable? What use was made of the ancient traditions of Syria? Were they rejected or channelled into particular courses? Did Syria act as a cultural unit or did each city have its own relations with local and foreign traditions?

Study of glyptic can cast light on these questions, but it has limitations. We cannot make inferences about ethnic composition from the seals alone, though comparing different kinds of artefact can be suggestive. If we find that a sharp change in glyptic has not been accompanied by a corresponding change in pottery, such was the case in the Akkadian period in the north, then it seems likely that the change has political rather than ethnic significance (though the contrary is not true). But it is only the textual data which makes us believe that Tell Brak was an integral part of the Akkadian empire in the time of Naram-Sin: the Akkadian art found at the site proves only that this style was acceptable to some of the inhabitants of the city. The seals do not give us a direct history of ethnic or political affiliation; but they can yield something which is perhaps more important: a history of cultural identity and for what purposes it was used.

2. Style and culture

"The centrality of style to high-cultural traditions is nonetheless vital. A civilisation and a style are nearly coextensive. A style is a crucial vehicle of discourse and of the maintenance of a society's identity: development of and rupture with styles are matters of great importance" (Baines 1994, 70)

The idea that art style can be used to trace cultural identity raises some theoretical problems. What is "a culture"? Is cultural identity related to ethnic identity? How do we recognise it? Cultural identity is an essential social dimension, which can be expressed in various ways, such as in language, religion and material culture. No formula exists to determine where particular kinds of message will be conveyed in the range of available means of expression⁹, and the identification of cultural units is controversial in archaeology. Yet analysis must be conducted within a field of enquiry, and in most situations the appropriate field is such a unit. To take an anthropological analogy, ethnographic observations are made within social units which are recognised by the people within them.

In the older tradition of archaeology, it was believed that "a culture" could be recognised as a consistent assemblage of artefact types, and that such an assemblage always corresponded to "a people", a linguistically and ethnically homogenous group of persons who constituted an ethnographic unit. Such a group would produce a single art style, and an art style could be used to recognise such a group. In practice, however, typological and other difficulties multiplied as more evidence became available, until the whole idea of "a culture" became questioned. At last Renfrew (1977, 89) advocated "the final abandonment of the simple notion of "culture", with its counterpart of "people" as a fundamental unit of discussion". Yet this produces a paradox: analysis cannot proceed without fields of enquiry, yet the natural units of analysis cannot be recognised by typological means. Although Renfrew suggested that "cultures" could be defined by considering settlement pattern hierarchies (1977, 99-102), the correspondence of settlement patterns to ideal structures is hardly greater than the correspondence of artefact assemblages to ideal typologies. Recognising this difficulty, Renfrew proposed (1977, 105-6) that social boundaries could be recognised by studying "the symbolism which the central authority employs to express its power". Therefore art styles, through which such symbolism is expressed, can have a special role in the creation and maintenance of social and political identity.

"High culture", including art and other phenomena, is the culture of the civilised elite (Baines 1994, 71), which can be used both to integrate society and to further the interests of the elite within society. In more complex societies, therefore, art tends to be produced according to strict rules which help to universalise the values incorporated into the art, and which can thus ensure social stability through the naturalisation of political and social relations (Hodder 1982, 209). It could be suggested, for example, that the continuity of high culture in Egypt made it easier to introduce administrative reforms at various times. This does not, however, necessarily imply artistic stagnation, because the

8 "Culture is not reducible. It just is" (Hodder 1987, 2).

9 For a different view, cf. Marcus 1991.

elite may also use art to support a programme of social change by the creation of a new art style, as in the reforms of Naram-Sin and Shulgi in Mesopotamia in the later third millennium. Other art styles may also exist in complex cultures, which are not used to express the central values of society. A productive tension may then arise between the use of fashion by the elite to keep ahead or to promote new values, and the use of emulation by other groups to catch up¹⁰. The other groups may use "old-fashioned" styles which were previously the preserve of the elite, or they may use styles which belong to a different artistic tradition. This process acts against the stability provided by unchanging artistic values, and various compromises between extremes are possible, none of them entirely devoid either of stability or of innovation¹¹.

In less complex societies, similar processes exist, but there is less scope for the production of art in contexts which are accessible only to the elite. Hodder has studied the maintenance of social boundaries through the manipulation of artefacts in an ethnographic situation. He concluded that artefact types do not have to participate in the identification of boundaries, but that they can do so if they are socially chosen for that purpose (1982, 185-8). A glyptic style might then be used to express ethnic identity, but it might also be used to demonstrate adherence to some system, such as a trade network, which operated on a different level. So in civilised societies, there is always a politically controlled "official seal style", while in less complex societies, glyptic may be used for the expression of ethnic identity, or it may be used for other purposes.

The concept of style used here, that a seal style is a group of seals which were made to be used in a particular context¹², is quite different from the older idea of style as an index of ethnic identity. A particular place and time may support more than one seal style. In general, the distribution of glyptic styles does not correspond exactly to the distribution of other artefacts such as pottery. In Early Bronze Age Syria, changes in the pottery styles probably reflect technological and social developments more often than ethnic changes. The division in pottery terms between western and eastern Syria might well reflect some ethnic distinction (though to judge from such personal names as are available in the middle of the period, probably not a very profound one), but this suggestion cannot be evaluated properly and there were significant pottery variations also on a smaller scale (cf. Mazzoni 1985). Therefore the glyptic styles probably represent ideological statements of various kinds, not ethnic identities.

Unfortunately in practice individual styles are hard to define, because there is not enough evidence. In this book I have isolated groups of seals which appear to go together in time and space, and problems of definition are discussed, but shortage of material means that these groups are small and include more variation than is desirable. It is not possible to suggest what these groups meant in human terms, and so I have avoided the use of terms such as "workshop". I assume that the groups ("styles") can be used as indicators of social identity, and I have discussed what kinds of identity might be represented by them, where relevant information is available. As more evidence is unearthed in the future, however, adjustments will have to be made.

If seal styles do not necessarily reflect archaeological "cultures", then their use in relative chronology becomes questionable. Traditionally, though, seal style is one of the pillars of relative chronology in the Near East. In the absence of historical data, or sufficient reliable radiocarbon dates to construct a relative chronology by new methods, the only other source of a chronology is pottery style. This has its own difficulties, as pottery studies are hardly more advanced than work on glyptic (Moon 1993, 149), and relative chronology depends on the existence of imports and exports, which are rare and subject to the same kind of detailed problems of provenance which apply to excavated seals. Pottery was less subject to political and cultural manipulation than seals, so sudden changes between phases are not likely. One should therefore distinguish between pottery assemblages (which may relate to "cultures") and chronological criteria. Major pottery types will probably have long periods of use and changes may, in theory, be better recognised through relative frequencies of types than through presence and absence. But in practice the relative frequencies of types in a particular excavation, especially a small modern one likely to have collected quantitative data, are just as likely to be the result of functional distortions as of change over time. Pottery chronology is therefore best conducted through the presence of particular diagnostic types which are known by experience to have limited and abrupt distributions in time, even if such types are not very common in the "cultures" to which they belong. The idea of the "culture" as a unit of social analysis should thus be divorced from the ceramic types which are used to mark the passage of time.

10 Cf. Miller 1982, 89; Bradley 1984, 72.

11 Cf. in the Kassite period, D. Matthews 1992.

12 The Nuzi archive shows that such inferences can only be made with caution (Stein 1993b). The very complex situation revealed in this unusually good source of evidence may be due to extensive re-use of seals. This means that we should not assume that seals which are found in special contexts were originally made with those contexts in mind.

Even by adopting this procedure, unfortunately, a reliable relative chronology cannot be established for Early Bronze Age Syria. Few recognisable pottery types are known to have restricted distributions in time, and few types of this kind have been found in places outside the main area of their distribution where they would allow one local sequence to be correlated with another. Relative chronology has to rely in part on glyptic.

Evidence from Syria alone will not allow the construction of a reliable sequence of seal styles without recourse to a general chronological framework which, as I have just stated, cannot at present be constructed from the pottery alone. However, in southern Iraq both a pottery sequence and a glyptic sequence can be established using local materials, such as the stratification of the Diyala sites, the seriation of the Royal Cemetery of Ur and the seals of historical persons. These glyptic styles were imported into Syria, and can be used as chronological markers there. This creates enough solid links between the regions of Syria to allow a relative chronology of the Syrian pottery types to be constructed. This chronology then in turn enables the local glyptic styles, which were not imported from the south, to be dated. These chronological schemes, which rely on various criteria, glyptic, pottery and other, should not be confused with "cultures". "ED II" is a seal style, not a culture; "ED III" is both a seal style and a culture, but not a political entity; "Akkad" is a seal style and, at least to some extent, a political entity, but it is not a culture¹³. In using such terms, I refer only to a period of time in which certain artefact types were used, that period being of unknown length. The chapter on chronology in this book is not intended to be a cultural history of Syria, or a complete relative chronology (which would require a book to itself): it is intended only to demonstrate what phases can be defined and what types are diagnostic for them.

3. Comparative glyptic: time and space

The chronological terms EB I-IV and ED I-III are discussed in Chapter II; in the west, Amuq G, H, I, J are used here as synonyms for EB I-IV. In eastern Syria, phases are usually given either according to the ED sequence, according to the correspondences established in the chronological section, or as phases in the Ninevite V and stoneware pottery sequences. Sometimes it is necessary to refer to other systems of phasing, especially in Palestine and at Tarsus. In these cases, phases such as "EB III" are described as belonging to the local system or are placed in inverted commas.

Lists of seals of each style are given in Chapter III. In order not to make this project impossibly large, I have defined an area which includes the whole of modern Syria with in addition Byblos and some sites in Turkey, and the whole of Assyria from Nuzi (Gasur) and Assur northwards. The lists are comprehensive for this area. Southern Mesopotamia is excluded from the lists on the ground that it should be understood exclusively on its own terms, but I have used southern evidence frequently to study types which occur rarely in Syria. Palestine has also been excluded because of the excellent study by Ben-Tor (1978); with occasional exceptions, I have used this work as my source for Palestinian evidence. The lists are based on a database which covers about 1000 seals from the target area. The database includes also about 900 seals from other sources, especially the Diyala region, which are cited (but not included in the lists) where their evidence is important. The seals are dated between the Uruk period and the end of the third millennium. The seal designs which are published in this book are *not* included in the lists, as the aim is to obtain an independent comparative picture with which to understand them.

Comments about chronology in these lists are not meant to be self-standing, but to refer the reader to where the issues are discussed in Chapter II – essential points are sometimes mentioned again in order to make the dates offered more comprehensible. They are *my* opinion of what the chronological evidence means, and often are not given in the source. Readers should always follow up these matters themselves whenever they can, as there is still no generally accepted frame of reference. "Context" always means archaeological context, and never stylistic context: stylistic dates in the lists are given in the headings, and the chronological notes at the end of each entry refer only to the associated material or stratigraphic context.

Occasionally descriptive information is given about individual seals in the lists, either about context or about the design. This is not intended to be formal catalogue information, which would require a much larger study and would clog the work with much irrelevant detail. It is intended solely to illustrate the arguments being advanced, and rarely covers the subject in question (e.g. the design description) fully. Readers wishing to use it for other purposes should always refer to the original source. This book is only a formal catalogue for the seals which are illustrated here. Seals from collections which have no provenance are usually excluded from the lists, but in some cases a type is particularly common in the collections which were formed in Aleppo (Ashmolean, Marcopoli) and examples are included.

13 The "Akkadian pottery", discussed in the chronology chapter (pp. 19-20), is not co-extensive with the seal style or the political state either in space or in time; but the seal style and the state are co-extensive or nearly so.

3.1 Locations

The map on pl. I cannot show all of the sites mentioned in this book because in recent years sites have often been excavated close to one another as parts of dam salvage operations. For the purposes of a broad regional survey, the exact location of sites is less important than their general situation. Areas of special concentration are marked as districts on the map in capital letters. This section is intended to summarise the locations of the sites mentioned here: for more precise information, the site reports should be consulted. Most sites are marked on the maps in Roaf 1990. Sites or districts named in bold type below have produced ten or more designs which are cited in the text.

The south, Diyala, Hamrin

This work is not intended as a general discussion of Sumerian glyptic and only the major sites (Ur, Uruk, Lagash, Fara, Abu Salabikh, Kish) are mentioned. Down the Gulf, a sherd impression of Syrian type has been found at Umm an-Nar in the United Arab Emirates. **Khafaje**, **Tell Asmar** (Eshnunna) and **Tell Agrab** are the principal sites in the Diyala region east of Baghdad. Further upstream, a dam salvage project in the Hamrin district opened many sites. A base map is published in *Iraq* 41, p. 158. Hamrin sites include Ahmad al-Hattu, Abu Qassem, Ajamat, **Gubba**, Kheit Qasim, **Maddhur**, Razuk, Rubeidheh, Sabra, **Suleimeh** and Yelkhi. There is a Tell Halawa in the Hamrin, though "Halawa" in this book always refers to the Halawa in Syria unless specifically stated.

Iran, Susiana

Apart from **Susa**, Iranian sites are not of importance here. A number of sites in Susiana (Sharafabad, Farukhabad, Choga Mish) are important for Uruk glyptic, as are Godin Tepe and other sites in highland Iran. Tall-i Malyan in Fars is a major centre of Proto-Elamite culture. Geoy Tepe near Lake Urmia in north-west Iran has produced a sealed sherd.

Assyria, Eski Mosul, Jazira

Assur and **Nuzi** have produced glyptic from the southern fringes of Assyria, and **Nineveh** from its centre. East of Nineveh, there are early seals from Tell Billa and **Tepe Gawra**. North of Nineveh, the Eski Mosul (Saddam Dam) salvage project includes many sites, including **Mohammed Arab**, Fisna, Jigan, Kutan, Karrana 3, Durdara and Tell Hamad Aga as-Sagir¹⁴. A base map is published in *Iraq* 47, p. 229. West of Nineveh, the Jazira region of Iraq is divided by the line of the Jebel Sinjar. North of Jebel Sinjar are Tell al-Hawa and Telul eth-Thalathat. South of it are Tell al-Rimah and Tell Taya.

Khabur

The Khabur region of eastern Syria is a continuation of the North Jazira plain. The upper Khabur is roughly triangular in shape with a series of tributaries running down from Turkey to a confluence near Hasake. Girnavaz is on the Turkish side of the border in this region, while the other northern sites, from west to east, include Halaf, Germayir, **Chagar Bazar**, Amuda, **Mozan**, Arbit, Mohammed Kebir and **Leilan**. The southern part of the triangle, less than 40 km from Hasake, includes Beidar, Kashkashok, Abu Hujeira and **Brak** itself; glyptic has been found on the surface of two sites near Tell Brak, Tell Mak and Tell al-Ma'az. South of Hasake, the Khabur runs down to the Euphrates in a narrow cultivable valley. Relevant material has been found only in sites of the Middle Khabur project just south of Hasake: Raqa'i, Atij, Bderi, Mulla Matar, Melebiya.

Syrian Euphrates, Balikh, Tabqa, Carchemish

The Euphrates runs in a narrow valley across Syria with inhospitable gorges at a point between Carchemish (Jerablus) and Meskene and again between Raqqa and Deir ez-Zor. The most important site in the eastern section, next to Iraq, is **Mari**, but Baghouz and Ashara (Terqa) are in the same region. In the middle section the river Balikh joins the Euphrates at Tell Bi'a; up the Balikh are Jidle, Hammam et-Turkman and Harran over the Turkish border. **Tell Chuera** is half way between the Balikh and the head of the Khabur near Tell Halaf. The Tabqa dam project was conducted on the great bend of the Euphrates near Meskene, where the shortest route from the Euphrates to the Levant runs across to Aleppo. A map showing most of the sites is published by Dornemann 1979, 114 fig. 1. Sites include Sweyhat, Šamseddin, Hadidi, Munbaqa, **Habuba Kabira**¹⁵, **Jebel Aruda**, Sheikh Hassan, Halawa and

¹⁴ Technically in the North Jezira project, but located close to Tell Durdara.

¹⁵ NB Habuba Kabira is two sites, Habuba Kabira South, which is a large Late Uruk site, and Tell Habuba Kabira, a smaller site which was occupied for the whole of the third millennium. Tell Qannas is the citadel of Habuba Kabira South.

Selenkahiya. Further north, sites in the Euphrates valley south of Carchemish on the Turkish border include Jerablus Tahtani, Amarna, Tell Ahmar (Til Barsip), Hammam¹⁶ and Kara Kuzak.

Turkish Euphrates and Anatolia

The Euphrates valley north of Carchemish includes **Hassek Höyük**, Samsat, Kurban Höyük, Lidar Höyük and Gritille. Arsameia is north of Samsat. Further north is Malatya with Arslantepe. In the Elaziğ region the Keban salvage project flooded the Altinova plain which includes Tepecik, Korucutepe and Norşuntepe; Pulur, Taşkun Mevkii and Han Ibrahim Şah are further west, NW of Elaziğ. Further north-west, in the central Anatolian region of the Kizil Irmak (Halys) river which later became the heartland of the Hittite empire, are Kültepe (Kanesh), Alishar and Alaca Höyük. Troy is a very long distance further west, and its links with Syria are surprising. In the Aegean, relevant seals have been found on Amorgos and Crete (Knossos).

South Turkey: Cilicia, Amuq, Islayiye, Gaziantep

The region south of the Taurus mountains is characterised by a series of plains separated by higher ground or by mountain ranges. The most westerly and largest of these plains, Cilicia, lies on the Mediterranean sea and includes **Tarsus** and Mersin. On the other side of the Amanus mountains is the **Amuq** plain, which apart from the sites excavated by Braidwood¹⁷ includes **Alalakh** (Tell Atchana). The Amuq plain has easy access west to the Mediterranean (via the Orontes gorge past Antioch to Al Mina), east to Aleppo over a low plateau, and north to the Islahiye region in which are located Zencirli, Gedikli and Tilmen Höyük. East of these sites, between Gaziantep and Carchemish, is the Sajur valley with Tell Basher. Oylum Höyük is near Gaziantep.

Western Syria: Aleppo, Orontes, Levantine coast

Surprisingly few sites of this period have been excavated in the immediate vicinity of Aleppo. The Qoueiq survey investigated the valley north of Aleppo, and Tell Abu Danne is east of Aleppo on the road to Meskene. The Orontes valley runs south of the Amuq plain and west of Aleppo past Apamea (Qala'at al-Mudiq), Tell Masin and **Hama** to Tell Nebi Mend (Qadesh). **Ebla** (Tell Mardikh) and Tell Afis are east of the northern part of this valley in fertile agricultural country. On the coast, Ugarit is the only important source of glyptic of our period in Syria; in Lebanon, **Byblos** is a major site. **Palestine** is treated here as a single region, as divisions within the area are not significant from the standpoint of eastern Syria. Palestinian sources of sealed sherds are shown on the map in Ben-Tor 1978, 103 fig. 25.

3.2 Index of places (*Tell, Tepe, Höyük, etc. omitted*)

Abu Danne	Aleppo	Jigan	Eski Mosul
Abu Hujeira	Khabur	Kara Kuzak	Carchemish
Afis	south of Aleppo	Karrana 3	Eski Mosul
Agrab	Diyala	Kashkashok	Khabur
Ahmad al-Hattu	Hamrin	Khafaje	Diyala
Ajamat	Hamrin	Kheit Qasim	Hamrin
Al Mina	Coast	Korucutepe	Turk. Euphrates
Alaca	Anatolia	Kültepe	Anatolia
Alalakh	Amuq	Kurban	Turk. Euphrates
Alishar	Anatolia	Kutan	Eski Mosul
Amorgos	Aegean	Leilan	Khabur
Amuda	Khabur	Lidar	Turk. Euphrates
Amuq	south Turkey	Ma'az	Khabur
Apamea	Orontes	Maddhur	Hamrin
Arbit	Khabur	Mak	Khabur
Arsameia	Turkey	Malyan	SE Iran
Arslantepe	Turk. Euphrates	Mari	Syr. Euphrates
Ashara	Syr. Euphrates	Masin	Orontes

¹⁶ Not to be confused with Hammam et-Turkman on the Balikh.

¹⁷ Judeideh, Çatal Höyük, Tainat, etc, collectively referred to here as the "Amuq".

Asmar	Diyala	Melebiya	Middle Khabur
Assur	South Assyria	Mersin	Cilicia
Baghouz	Syr. Euphrates	Mohammed Arab	Eski Mosul
Basher	south Turkey	Mohammed Kebir	Khabur
Bderi	Middle Khabur	Mozan	Khabur
Beidar	Khabur	Mulla Matar	Middle Khabur
Bi'a	Syr. Euphrates	Munbaqa	Tabqa
Billa	Assyria	Nebi Mend	Orontes
Brak	Khabur	Nineveh	Assyria
Byblos	Coast	Norşuntepe	Turk. Euphrates
Carchemish	Euphrates	Nuzi	South Assyria
Chagar Bazar	Khabur	Oylum	Gaziantep
Choga Mish	Susiana	Pulur	Turk. Euphrates
Chuera	Balikh	Qoueiq	Aleppo
Durdara	Eski Mosul	Raqa'i	Middle Khabur
Ebla	south of Aleppo	Razuk	Hamrin
Fisna	Eski Mosul	Rimah	Jazira
Gawra	Assyria	Rubeidheh	Hamrin
Germayir	Khabur	Sabra	Hamrin
Geoy	NW Iran	Şamseddin	Tabqa
Gimnavaz	Khabur	Selenkahiya	Tabqa
Godin	West Iran	Sharafabad	Susiana
Gritille	Turk. Euphrates	Sheikh Hassan	Tabqa
Gubba	Hamrin	Suleimeh	Hamrin
Habuba Kabira	Tabqa	Susa	Susiana
Halaf	Khabur	Sweyhat	Tabqa
Halawa	Tabqa	Tarsus	Cilicia
Halawa (Hamrin)	Hamrin	Taşkun Mevkii	Turk. Euphrates
Hama	Orontes	Taya	Jazira
Hamad Aga as-S.	Eski Mosul	Tepecik	Turk. Euphrates
Hammam	Carchemish	Thalathat	Jazira
Hammam et-T.	Balikh	Til Barsip	Carchemish
Han Ibrahim Şah	Turk. Euphrates	Tilmen	Islahiye
Harran	Balikh	Ugarit	Coast
Hassek	Turk. Euphrates	Umm en-Nar	U. A. E.
Jebel Aruda	Tabqa	Yelkhi	Hamrin
Jidle	Balikh	Zencirli	Islahiye

4. Prospectus

This book has five main sections: Chronology, Comparative Glyptic, Commentary, Conclusions and Catalogue. A comprehensive study of the seals of Early Bronze Age Syria is provided first, followed by a presentation of the glyptic of Tell Brak, and a conclusion setting this evidence in a wider historical context.

Chapter II on *Chronology* is in two parts, covering respectively the southern glyptic sequence, which is used as an independent source of knowledge, and the relative chronology of pottery styles in western Syria, eastern Syria and southern Mesopotamia. Aspects of the southern cultural sequence have been called into question in recent years, such as the existence of the ED II, ED IIIB and early Akkadian phases. I uphold the traditional scheme of Frankfort with a discussion of the evidence from southern sites, including the implications of Pollock's pottery seriation of the Royal Cemetery of Ur. The outcome is that every phase established by Frankfort is useful and identifiable, with the exception of ED IIIA¹⁸. The beginnings of the sequences in these regions can conveniently be coordinated by reference to the Late Uruk horizon which is visible over much of the Near East; the end of the sequence is less secure,

¹⁸ A phase not doubted by anyone else! While I do not dispute the existence and importance of ED IIIA, I have not been able to identify any characteristics in seals of ordinary engraving quality which were not used also in ED IIIB; there are, however, ED IIIB traits which were not used earlier.

since I have not gone down as late as the Middle Bronze Age. Weiss and Courty have recently advanced a proposal that climatic change caused a hiatus in occupation in most sites between the Early Bronze Age and the Middle, thus making a "Dark Age" the common end point. I have included some criticisms of this theory, but I agree that many sites were abandoned in the Ur III period in Syria. Although Tell Brak does not have a gap in occupation at that time, it does show a hiatus in artistic development.

Having thus established a frame of reference, I then turn to the seals which have actually been found in Syria in Chapter III, on *Comparative Glyptic*. No site in Syria has produced such a large body of published glyptic as we have at Tell Brak, and most sources have only yielded three or four seals. The approach which can be used in the south, making a system out of a few major sources such as Ur and Tell Asmar, is therefore inappropriate. Syria was more culturally divided in the Early Bronze Age than Babylonia, with more strongly marked regional trends; in consequence of this, a deficiency of evidence in a particular area, as for inland Syria in EB I-II, can seriously affect our understanding of the whole picture. I have therefore made a complete list of every design known to me, to reveal the distributions of each type in space and time.

There is no study here of the modelled Uruk style glyptic in Syria, which is known mainly from the impressions of Habuba Kabira (Strommenger 1980, figs. 55-58, etc.) and Jebel Aruda (Van Driel 1983). No criteria have yet been proposed which would distinguish this material from the modelled Uruk glyptic of the south¹⁹. Late Uruk glyptic is covered only from a Syrian perspective. The evidence for the earliest cylinder seals in the Middle Uruk period from Syria and Iran is summarised and there is a brief discussion of the design types which are present in schematic Uruk glyptic. This leads naturally into a consideration of the Aleppo Series, which was the most important source of glyptic in the west in EB I.

Aleppo Series glyptic, which is defined by the special attachments of the cylinders, not by the designs, belongs to several glyptic traditions: Uruk figurative, Uruk geometric, and various native Syrian styles. The figurative Uruk glyptic can be dated by reference to other Uruk seals: unlike the geometric patterns of Uruk type, it can safely be assumed that no figurative Uruk seals were made in the mid third millennium. Unfortunately nearly all of the stratified Aleppo Series seals in EB I are of geometric type, either with Uruk patterns or with patterns related to them, such as the diamond with circled dots. I propose that all seals with the special attachments belong to the Uruk period if the design is figurative Uruk, and to EB I if the design is of a type otherwise unknown in the Uruk period; Uruk-type geometric patterns could belong to either period.

Geometric designs are traditionally assigned to the "Jemdet Nasr period"; leaving aside the problems of defining such a period outside southern Mesopotamia it is now clear that most of the patterns originated already in the Late Uruk period, and that many of them continued in use long after. The fact that geometric seals were not often used to make impressions means that the evidence for their use is patchy. I have tried to guess what period of manufacture would best fit the known distribution of seals, expecting to see a fall-off in the frequency with which such seals occur at its end, or perhaps more likely one phase after the end, allowing time for the last seals made to be used and lost. The shortage of material means that the solutions offered should be seen as suggestions, not facts; but the high proportion of geometric designs among seals from EB I-II contexts in Syria supports the continued manufacture and use of such seals at that time, even if the total quantity of objects is not large.

The fired steatite style is a special, largely geometric group of seals which is rare or missing everywhere in Syria except at Tell Brak. Its distribution runs along the base of the mountains eastward to Elam, and some features of the associated functional evidence are discussed in the light of the recent proposals of Pittman (1994).

So far the argument has covered the foreign styles which lie at the root of the glyptic of Syria in the Early Bronze Age, together with the derivative styles which occur in the Aleppo Series. These include numerous coarse seals featuring swirls or circled dots, in which the old distinction between geometric and figurative designs was not preserved. A more distinctive tradition is followed in the early sherd impressions of the western sites such as Byblos and in Palestine. Designs of animal rows follow a purely local tradition, while a few designs had more wide-ranging connections. It is proposed that there was a native tradition in inland western Syria in EB II, of which almost no evidence survives today, because of the clear continuity between EB I and EB III.

In EB III these two streams, the coastal tradition on sherds and the inland tradition which must be reconstructed, were recombined in a flourishing range of native styles in western Syria. These styles were also related to the earliest hybrid glyptic containing Early Dynastic traits, the Chuera Style.

Early Dynastic glyptic in Syria is described from the beginning. It is proposed that the few ED I and ED IIA seals were all imported. Early Dynastic glyptic first became common in Syria in the later ED II period, and in ED III became fully naturalised in the inland part of the country. Many seals were made which show no special stylistic traits but which have different preferences from the south in the use of forms. Most of these showed contest scenes, and except at Mari Early Dynastic scenes of other kinds were few and unimaginative.

19 Pittman in Ferioli et al. 1994, 198 n. 36.

There was also a succession of Syrian derivatives of the Early Dynastic style. Some show Syrian subjects in an Early Dynastic style of engraving, such as the "Syrian Ritual". Other styles had peculiarities both in engraving style and in subject. The first of these was the Chuera Style, which was derived from the native tradition of western Syria and from southern Early Dynastic in roughly equal proportions. In ED III it was followed by the Brak Style, whose elements all came from the south but which had quite different principles of composition both in the individual figures and in the scenes. The Ebla Style had more normal compositions but included imaginative subjects. The last local Syrian group is the "EB banquet" series, much of which probably dates to the Akkadian period, though it shows no Akkadian traits. Little evidence survives for this group, and what there is lacks definition, but it probably acted as a main source of inspiration for the earliest glyptic of the Middle Bronze Age.

Akkadian glyptic is widely distributed in Syria, but unlike the Early Dynastic glyptic before it, it shows no local adaptations. Except at Mari, Ur III glyptic is even more foreign to Syria. It is restricted to a small number of sites and it may be suggested that it was disseminated only through a long-distance trading network which involved few centres. It is not clear whether this network existed in the Ur III period, or whether these seals were transported later during the golden age of this network in the second millennium.

The *Commentary*, Chapter IV, relates the styles of the seals from Brak to the comparative material reviewed above. The Akkadian and Early Dynastic material at Brak is discussed in relation to the glyptic of the south, and the traits which were transferred from the Early Bronze Age to the Middle via the "EB banquet" scene are described. This last topic might be more logically placed in Chapter III, but so many of the relevant seals come from Brak that it seemed better to locate it here.

This is followed by a discussion of the provenances of the seals catalogued in this volume, both from the Mallowan and from the Oates excavations. After a discussion of the stratification and lists of all the seals in context a chronology for the strata is proposed. Since the stratified Uruk glyptic from Brak is excluded from this volume, the useful contexts all date to the later part of the third millennium, a time which is deficient in glyptic in many of the contemporary excavated sites in Syria. It is proposed that the unusually good assemblage from the Akkadian Main Level in the FS and SS sites at Brak should be used as a general benchmark for the development of glyptic in eastern Syria. Its dating is quite as well established as the other benchmark assemblages such as Palace G at Ebla. The consequences for the dating of various Syrian styles which are present at Brak are then followed.

The functions of the seals are investigated using the evidence of the seal-impressions. Tell Brak has not produced many seals from special contexts such as temple deposits or graves, but the types of sealed bulla show correlations with various seal styles and help to explain why so many styles are present at the site. Most important is the use of the Brak Style on a special kind of docket in the Akkadian period, revealing a sophisticated native administrative tradition associated with a particular kind of building.

The *Conclusions*, Chapter V, include a summary of the development of the seal styles in Syria, followed by a discussion of the implications for our understanding of Syrian civilisation. Cylinder seals are among the most important evidence we possess for "high culture" in Early Bronze Age Syria and they allow us to write a narrative of some of the ideological aspects of cultural development.

II. CHRONOLOGY

A SOUTHERN MESOPOTAMIAN CHRONOLOGY

1. General observations

It may seem superfluous to undertake a study of ED glyptic, when the sequence in the contest scenes was established long ago by Frankfort (1939) and refined by Boehmer (1969). These studies are generally accepted. The phases within Early Dynastic glyptic, ED I-III, can each be subdivided into earlier and later stages (Martin 1988, 69-80). Early ED I seals continue the archaic modelled tradition: this type is not known in Syria. Later ED I glyptic, of the kind which does occur in Syria, represents an early stage in the development of the Early Dynastic contest frieze, with stylised, often heavy forms and many small filling items. The ED IIA "elegant style" has similar compositions, but with slender figures and less distortion. In ED IIB the "crossed style" compresses the action by the crossing of the figures. This can result in elaborate compositions with many actors, but the drawing of individual figures remains simple and linear. Monsters proliferated during this phase. In ED IIIA the figures were still usually crossed but compositions often became simpler. The range of figure types became more standardised, but new types such as the stag, the leopard, the lion-headed bird ("Imdugud") and the human-headed bull or bison became common. Forms were now broader with much more elaboration in the rendering of details such as hair and muscles; lion heads were often shown from above. In ED IIIB a new kind of contest frieze was introduced, in which the animals were more steeply rampant, but were less commonly crossed. The Akkadian period saw a new engraving style in which the figures contributed more to the scene as individuals and less as fractions of a frieze pattern: empty space became more common and fluid forms were used in the musculature. Early Akkadian designs have similar figures and compositions to ED III seals, but in the late Akkadian period several of the older figure types such as the bison disappeared and the water-buffalo with its long curving horns came into use. Simpler compositions, often with four main actors in opposed pairs, were normal at this time. In the Ur III period contest scenes became unimportant for the first time, and glyptic design was dominated by the presentation scene.

These phases are recognised primarily in the contest scenes, and scenes of other kinds, especially banquet scenes in the Early Dynastic period and scenes of the gods in the Akkadian period, are often impossible to date within a subphase. The rendering of the human head however changed between the Early Dynastic period, when it was hollow, and the Akkadian period, when it was solid, so the difference between these main periods is almost always recognisable by this and other means.

Problems however arise with how this sequence is to be used, in two main areas. First, the literature concentrates on the very finest seals of "royal" quality, of a kind which is not often found in excavations. It is not obvious how the principles which order fine seals, which often depend on details such as the rendering of the hairs on the tails, can be applied to seals of lesser quality. Second, the whole structure of the scheme has been doubted in recent years because the changes in glyptic do not always correspond to changes in other kinds of material such as pottery. It has been proposed for example that the ED II and ED IIIB phases cannot be recognised in pottery and are therefore not useful; doubt has been cast also on the early Akkadian and post-Akkadian phases. My purpose here is to vindicate the standard sequence against such doubts by demonstrating that it does provide the most useful way of organising the glyptic.

It is questionable whether ED II glyptic represents a general cultural phase. It does not correspond to a ceramic assemblage and the chronological value of "ED II" sculpture is doubtful¹. However the seal style belongs to a particular time between ED I and ED III, and Martin has shown that there is a chronological difference between the sub-phases (1988, 74-5). I shall therefore use ED II glyptic as a chronological marker.

The ED III and Akkadian styles are investigated here by reviewing the historical and palaeographical evidence, and by looking at some collections of excavated glyptic. This is not a full study of these styles, but it will show how far they can be used for chronology.

The iconographic status of diagnostic traits is an independent question which will not be explored here. Every design is a combination of matter and manner, and there is no *a priori* way in which we can distinguish between them (though we may be able to do so by studying the principles of composition). If a lion is shown with a mane, this may show how the artist saw "a lion". Alternatively, it may represent something particular about the lion (e.g. male, fierce,

¹ The ED II "abstract" and ED III "realistic" styles of sculpture existed together in two of the main sources of statues from the Diyala region, in the Sin IX and Nintu V temples (cf. Frankfort 1943, 5-6, esp. no. 217). As with the statues of Tell Chuera, which resemble the "abstract group", ritual deposits of this kind do not yield good evidence for dating.

etc.), and that in turn may symbolise some quality that has nothing to do with lions. For our purposes, it is enough to know whether the mane was only used in certain styles.

I am assuming here that diagnostic traits can only be seen in contest scenes. Although some scenes of other kinds show some signs of chronological development, it is very doubtful whether these can be used to give a precise date to individual seals in Syria. To take one example, a vertical barred stool occurs in banquet scenes both in the ED II Fara glyptic (Fara 518, 520), and in the late ED glyptic of Lagash (Selz 1983, 429)².

1.1 Textual evidence

The names of numerous rulers are known from Early Dynastic Sumer (see Cooper 1986). Many of them are listed in the Sumerian King List, but the difficulties of interpretation of this document make it unsatisfactory as the basis for a general chronology. Moreover, most of the rulers are not associated with material which can be fitted into a sequence on other grounds. In only one case, that of the rulers of Lagash (who are not included in the Sumerian King List), is there what looks like a continuous sequence covering all or most of the ED III period; and therefore the essential problem in Early Dynastic historical chronology is to relate the rulers of other cities to the dynasty of Lagash. The dynasty of Lagash is also our only real evidence for the absolute passage of time, since all other identifiable sequences of rulers are quite short and stratification does not suggest a long interval: the Diyala sequence does not assign more than three strata to ED III anywhere. Cooper's table (1986, 14) shows nine rulers of Lagash from Ur-Nanshe to Urukagina, including at least five generations as shown by filiation. His estimate of c. 150 years for the whole ED III period therefore seems reasonable, with the proviso that we cannot really define the beginning of the period in historical terms. There is no historical basis for a subdivision of this period, because no Early Dynastic king can be said to have made a permanent change to the nature of the political world, as Sargon did at the beginning of the Akkadian period.

In palaeographic analysis, the clay tablets should be distinguished from the stone monuments which bear the names of the rulers. In the opinion of Biggs (1973, 46) comparison of the forms of the signs on early stone monuments is useless, because they were not carved by professionals who might be expected to conform to a particular style of writing. This is unfortunate as it is exactly on this ground that Boehmer (1969, 271-3), following Nagel and Nissen, proposed a synchronism between Ur-Nanshe and Meskalamdug which lies at the basis of his scheme.

The most important distinction however lies not in the forms of the signs but in the order in which they were carved. In the archives of Fara and Abu Salabikh the signs are arranged within their cases in arbitrary fashion. At Lagash, this practice was reformed on stone inscriptions in the time of Eanatum. Although it is true that this reform could have taken place at different times in different places, no problems are caused by using this as a primary organising principle, so that the Fara and Abu Salabikh tablets are ED IIIA, and the inscriptions from the time of Eanatum and later are ED IIIB³. Since Ur-Nanshe was a predecessor of Eanatum, it follows that he belongs to ED IIIA. There seems to be no useful purpose in trying to use palaeography to assess whether Ur-Nanshe was earlier or later than the two early archives: the important thing is that all are earlier than Eanatum⁴.

The next recognisable palaeographic phase after ED IIIB is "Classic Akkadian". This style of writing belongs to Naram-Sin and thus to the later part of the Akkadian period. "ED IIIB" writing was still being used in the time of Sargon (Archi 1987, 135); the situation under Rimush and Manishtusu is unclear, so that the division could conceivably have occurred either under Sargon or at any subsequent time up to early in Naram-Sin's reign. The boundary between the Early Dynastic and Akkadian periods should be defined in historical terms by the conquest of the cities of Sumer by Sargon. It is not known when this happened in his long reign and there is therefore some uncertainty about how much he overlapped with his contemporaries Urukagina of Lagash and Lugalzagesi of Umma (cf. Powell 1978, 27). Nonetheless this uncertainty does not seriously affect our ability to define an "ED IIIB" period on historical grounds, because Eanatum, who marks the beginning of the period, can hardly have reigned much less than a century before Urukagina, as five other rulers reigned between them. The suggestion which is sometimes made⁵ that ED IIIB must be short because Enshakushana of Uruk cannot have reigned long before the time of Sargon, has no cogency, because there is no reason to suppose that Enshakushana lived near the beginning of ED IIIB.

It is not possible to use the shapes of individual signs to distinguish between ED IIIB and early Akkadian, because of the existence of regional handwritings. Alberti and Pomponio (1986, Table A) have given a table of selected sign forms from the Fara and Abu Salabikh tablets down to the Classical Akkadian period. It is notable how much more

2 I do not mean that Selz has not properly identified typical criteria for the various groups of banquet scene, only that I cannot see any criteria arising from this work which could be used to establish the dates within the ED period of banquet scenes in Syria. Cf. Collon 1986b, 94.

3 On this criterion, the Ebla texts are not earlier than ED IIIB: Archi 1987, 133.

4 Biggs 1973, 46; 1974, 25. This has also been demonstrated by Hallo (1973, 230, 235) on the basis of legal and onomastic evidence. Prof. Westenholz tells me that tablets of "Fara" type have been excavated beneath a building of Ur-Nanshe.

5 Moorey 1981, 448; Schwartz and Weiss 1992, 239.

consistent archives of the first and last phases are in their usage than are those of the middle phase, and how the earlier and later phases at Lagash have more in common with each other than with other archives of similar dates. Only in four cases in the table (DA, MU, E, U-NÍGIN) is the Classic Akkadian form not attested in the earliest archives. Looking at these four signs, Lagash seems to make precocious use of "late" forms, while Adab and Nippur keep the older forms. The latest identifiable ED IIIB archive, the "Lugalzagesi" archive from Zabala, shows no "late" forms which do not occur much earlier elsewhere, except for the later form of DA.

Therefore ED IIIA and ED IIIB can be distinguished from each other by palaeographical but not by historical criteria, while ED IIIB and Early Akkadian are distinguished by historical but not by palaeographic traits. Nonetheless both boundaries are established in their different fields by clear and important signs, and therefore the historical-palaeographical approach vindicates the existence of an ED IIIB period of significant length, in which, to judge from Cooper's table (1986, 14), the majority of the known Early Dynastic rulers must be placed.

To connect this scheme with the glyptic the evidence from Ur is essential, and this requires dates for Meskalamdug, whose seal was excavated in the Royal Cemetery, and Mesannepada, whose seal-impression was found in the rubbish stratum which overlies the Royal Cemetery. An inscribed bead from Mari shows that Meskalamdug was the father of Mesannepada (Westenholz 1979, 119). Various arguments can be used to relate these rulers to the dynasty of Lagash. Cooper says for example (1986, 23) that Lugalkignedudu of Uruk must be later than Mesannepada because he ruled in Ur. Since Lugalkignedudu was a contemporary of Enmetena, the nephew of Eanatum, it is not unlikely that Eanatum and Mesannepada were contemporaries. These arguments could be questioned, and the synchronisms which they produce, between Mesannepada and Eanatum, and between Meskalamdug and Ur-Nanshe, are not very solid; but these links do make sense on historical grounds and they are not likely to be drastically wrong (cf. Hansen 1987, 55 n. 4). In terms of our scheme therefore Meskalamdug and the rich tombs of the Royal Cemetery of Ur belong to the ED IIIA period, and Mesannepada belongs to a time near the beginning of ED IIIB.

1.2 ED III Glyptic

Boehmer (1969) has proposed a scheme with four stages for ED III seals: first, seals contemporary with the "Imdugud Sukurru" glyptic of Fara, including groups from the Diyala region and Ur ("Early Meskalamdug"); second a "Mature Meskalamdug" phase, third a "Mesannepada" stage and finally a "Lugalanda" group from Lagash to be dated to the end of the ED IIIB period.

There are two problems with this scheme. First, it is not clear whether the distinctions are chronological, geographical or social. As he showed himself (1969, 269-70), no distinction can be maintained between graves at Ur which contain "Early Meskalamdug" seals, and those which contain "Mature Meskalamdug" ones. The same stylistic difference is maintained by Buchanan (1966, 21f.). One should not however assume that greater or lesser "development" in art has to have a chronological significance. Therefore no chronological subdivision should be made within ED IIIA and such differences as can be detected between the ED IIIA glyptic of Fara, the Diyala and Ur should be ascribed to regional or social factors (Porada 1970, 9).

Second, the application of this scheme to ordinary seals is not simple. Boehmer's criteria include the rendering of fine details such as beards and tails which cannot be applied to seals of ordinary quality where tails are not shown with volutes or separated strands. To use the sequence for ordinary seals we have to find traits which can be observed in them. The most helpful factors are likely to be compositional rather than in the engraving style. For example, the ED IIIB contest frieze shows the creatures steeply rampant and not crossing, while in ED IIIA they are less steeply rampant and they do cross. This distinction can be applied to many seals of ordinary quality which are found in archaeological contexts.

In the royal seals, the later composition first appears in the seals of Mesannepada and his wife (FI 522-3), and on this basis they may be assigned to ED IIIB. In other respects, the seals of Mesannepada have much in common with the Royal Cemetery glyptic, and for this reason Buchanan (1966, 21) placed them together in the same phase. So far as the royal seals themselves are concerned, there is no good reason to prefer to use compositional factors rather than engraving details for the chronology. But the compositional distinction occurs in all the contest seals of the ED III period, and we want our criteria to be widely applicable. For this reason, I would not place the "Mesannepada" and "Lugalanda" glyptic in different chronological phases. The historical link between Mesannepada and Eanatum is weak, as shown above. It can be used (Boehmer 1969, 273) to demonstrate a chronological distinction between Mesannepada and Lugalanda glyptic. I prefer to count these glyptic groups together (assigning differences to geography) and to use the historical link to show that the ED IIIB style existed throughout the ED IIIB period.

Is this distinction useful for chronology among the ordinary seals which show the two compositions? There is some reason to doubt this. First, there are seals which show both compositions together (e.g. FI 523). Second, the crossed-animals contest exists in Akkadian seals (BM II pl. VIII) and may therefore be supposed to have existed in

ED IIIB. Third, one of the Lugalanda seals (FI 952), which should date late in ED IIIB, shows crossed figures. For these reasons it seems likely that the crossed-animals principle survived throughout ED IIIB. The distinction should not however be abandoned, because of the distribution in archaeological contexts of the ordinary "ED IIIB" contests (with figures which do not cross). In the Diyala sequence, seals of this type are invariably stratified in contexts which are just earlier than the contexts in which the first Akkadian seals are found. This is a convincing result because it does not depend on any particular interpretation of the Diyala material: the Akkadian seals are defined on criteria independent of the traits which define the "ED IIIB" seals, and both groups are identified by clear unequivocal traits which do not rely on fine or controversial details. In the Royal Cemetery likewise, "ED IIIB" seals are found in Pollock's Phases III and IV, i.e. after the ED IIIA seals of Phases I and II and overlapping the first Akkadian seals in Phase IV. These archaeological contexts are discussed further below.

Were it not for this independent archaeological information I would not consider the ED IIIB phase to be well established in glyptic, but it does clearly, if not decisively, support the idea that "ED IIIB" seals existed only in the period immediately before the Akkadian period, whereas "ED IIIA" seals commenced earlier. What it does not prove is the contrary, that ED IIIA seals did not exist in ED IIIB, and we have seen that there is reason to think that they did. So "ED IIIB" seals only exist in ED IIIB, but "ED IIIA" seals can exist either in ED IIIA or in ED IIIB. Therefore, paradoxically, ED IIIB is better defined than ED IIIA, and it cannot be abolished without explaining why this glyptic difference exists.

1.3 Combined evidence

ED IIIA in textual terms means primarily the Fara and Abu Salabikh archives, which have a good link with Ur-Nanshe of Lagash, and a rather weaker one with Meskalamdug of Ur. The Fara archive can be attached to the ED IIIA "Imdugud Sukurru" glyptic through the gala-priest of that name who occurs in the tablets, if it is the same man. The ED IIIA glyptic of the Royal Cemetery, including the seal of Meskalamdug, is similar in style. Furthermore the archaeological assemblage at Abu Salabikh and probably also Fara which was associated with the tablets belongs to the ED IIIA pottery phase⁶. Therefore the tablets, royal inscriptions, glyptic and pottery assemblage of ED IIIA are all well tied together.

The earliest evidence for the ED IIIB glyptic style is in the seals of Mesannepada and his wife (FI 522-3). Mesannepada can be assigned to a time early in the historical ED IIIB phase, as stated above. The latest evidence for this style is in the seals of Lugalanda, who lived near the end of the ED IIIB period. Thus we have evidence, as good as can be expected, that the ED IIIB glyptic style existed almost exactly during the same period which we have defined on historical and palaeographical grounds as ED IIIB. This coincidence of distinctions shows that ED IIIB period is real and useful and should not be abolished without the strongest evidence. Further chronological subdivision within the ED IIIA or ED IIIB periods, however, is not helpful, either on glyptic or on textual grounds. Attempts have been made, but they rely on weak arguments and they have produced no distinctions which cannot be accounted for satisfactorily on regional grounds.

1.4 Akkadian period

The basic work on the chronology of Akkadian glyptic is by Boehmer (1965)⁷. There is no problem in defining a Late Akkadian period which is characterised by Classic Akkadian tablets and Late Akkadian glyptic. This period began not later than at some time in the reign of Naram-Sin.

The Early Akkadian period is not so easy to define, because there are no historical figures who are associated with Early Akkadian glyptic and not with Late Akkadian glyptic. One could therefore propose that "Early Akkadian" seals represent some non-chronological distinction. The first problem arises from Gibson's redating of the "Proto-imperial period", as discussed here elsewhere (see p. 18). An implication of this work was that much material previously regarded as ED IIIB should be reassigned to the Early Akkadian period. Within the Akkadian period, there are no seals with clear Early Akkadian contest scenes whose date is unequivocally fixed, either by the inscription or by being impressed on a dated tablet, to a time earlier than the reign of Naram-Sin. There are essentially two reasons for the dating of this style to the Early Akkadian period. First, it lies stylistically between Early Dynastic and Late Akkadian, both in the engraving style and more especially in the subject matter. This is a strong observation, but without

6 Porada et al. 1992, 107-109; Biggs 1966, 75 n. 19.

7 The detailed subphases in Boehmer's scheme should not be accepted (Nagel and Strommenger 1968, cf. Dittmann 1994, 78 n. 7). Nonetheless Boehmer firmly established the general difference between early and late Akkadian glyptic. I do not find the dating from titularies proposed by Nagel and Strommenger (1968, 176-180) convincing. For the problem of Epirmupi, cf. Fischer 1992, 86-7 n. 74-5, Foster in Liverani 1993, 177.

some confirmation it is not enough to settle the matter. It would be possible to imagine that some social factor preserved archaic traits in a particular group of seals while other contemporary seals did not show them. Second, several seals with clear Early Akkadian traits are connected with the name of Enheduanna, daughter of Sargon (Boehmer 1964), while "Late Akkadian" seals are associated with Naram-Sin.

The difficulty here is twofold. First, Enheduanna may have lived into the reign of Naram-Sin. This idea stems from counting generations, on the assumption that we know the names of all the high priestesses of Ur, and from the mention of one Lugalanne in a hymn of Enheduanna, who is elsewhere said to be a leader of the "General Rebellion" against Naram-Sin (Hallo and Van Dijk 1968, 2, 25f.). However, Sargon also faced a "General Rebellion" (Hallo and Van Dijk 1968, 3-4), and it is doubtful how far the texts in question should be treated as history, and how far they are literary compilations of topics which may derive from different times (Liverani 1993, 59-61). A woman may certainly be alive 25 years after the death of her father, but as Sargon did not die young much of her active life could have passed considerably earlier. Second, an impression which bears her name shows clear Late Akkadian traits, especially in the water-buffalo (UE II 309). I would prefer to see this as evidence that the Late Akkadian style originated rather earlier than the beginning of Naram-Sin's reign, but it could be used to show that there is no chronological difference between the Early and Late Akkadian glyptic styles. Confirmation of this difference depends on the archaeological evidence discussed below.

1.5 Post-Akkadian period

This period has attracted much attention both in historical and in art-historical terms. After the "Classic Akkadian" era of Naram-Sin and Sharkalisharri, there are three possible phases before the beginning of the Ur III period with Ur-Nammu, namely the latest Akkadian kings (Dudu and Shudurul), the dynasty of the Gutu, and the Gudea dynasty at Lagash. If these rulers reigned successively then a period of centuries could have elapsed.

Recently authors have preferred shorter chronologies (Dittmann 1994, 101-2, Hallo 1957-71, 714). There seems to be no reason to have a "Gutu period" as such at all, as those kings could have been entirely contemporary with rulers from the other dynasties. The final rulers of Akkad held power in the Diyala region and may even have been based there, if Shudurul was named after the Diyala river, though his father made a dedication in northern Babylonia (Steinkeller 1992, 728). Since the other rulers in Lagash, Ur and Uruk (Utuhegal) reigned in the south there is no reason why they should not have been contemporary with these Akkadian kings. It is possible that the Lagash dynasty originated as early as the reign of Sharkalisharri. Hallo suggested (1957-71, 714) that we have a complete list of the priestesses of the moon at Ur, so that the daughter of Naram-Sin, who reigned in the "Classic Akkadian" period, was succeeded by a nominee of the Lagash dynasty who officiated for some forty years until the Ur III period.

Steinkeller has shown (1988) that four different officials are attested both under Gudea or another ruler of Lagash and under Shulgi, successor of Ur-Nammu. However, there are three Ur-Nammu date formulae from Lagash. Taken together, these data suggest that the Lagash dynasty was in power not long before the time of Shulgi, but not throughout the reign of Ur-Nammu, so a long overlap between Gudea and Ur-Nammu seems likely. The placement of individual Lagash rulers is complicated by the duplication of names (Maeda 1988), though there seems to be only one Gudea. Puzur-Inshushinak, the Elamite ruler, used to be assigned to a date contemporary with Naram-Sin. A text recently excavated at Isin has demonstrated that he was really a contemporary of Ur-Nammu⁸.

Turning to art works, we have the following groups of seals to consider: classic Late Akkadian seals of "Naram-Sin" type; Provincial Elamite seals; the "shakkanakku glyptic"; classic Ur III glyptic; a group of contest scenes identified by Boehmer (1965, 39-41); and the groups discussed by Boehmer 1966 and Dittmann 1994: "Post-Akkad A", "Post-Akkad B" and the Lagash group. The "shakkanakku glyptic" and the Provincial Elamite seals are discussed elsewhere (see pp. 126, 146); neither provides evidence for the existence of a phase between Akkadian and Ur III.

Although it is certain that classic Late Akkadian seals were in use at the time of Naram-Sin, because some of them bear inscriptions giving his name, this does not prove that they were not made earlier or later. Fischer (1992, 87 Abb. 4-5) has found examples impressed on Ur III tablets, including the important impression of the seal of Ur-Nammu's wife (Abb. 5) which, even if the inscription is recut, still demonstrates the use of such seals in the highest circles at that time. The same thing is shown by the "Post-Akkad A" seals. These are standard Late Akkadian seals in which some detail suggests a later date. If these details are integral to the design, then we are not dealing with Late Akkadian glyptic. If not integral, then an original Late Akkadian seal may have been recut later, with "Ur III" details (e.g. Fischer 1992, nos. 1, 3, 8, 27, 29) or with the inscription of a person believed to be later on historical grounds (EGAZ 271-3). The "Post-Akkad A" seals thus demonstrate the continuing acceptability of "Akkadian" forms in the post-Akkadian period, but they do not represent an artistic school.

8 Wilcke 1987, 108-111; cf. Dittmann 1994, 80-1, 100 n. 79.

Similar strictures apply to the seals of the "Lagash school". If defined as "all seals made for rulers of the Lagash dynasty" this group makes no artistic sense, because some of the designs are in a pure Late Akkadian style. If it is defined as "seals from Lagash showing artistic innovations", then it cannot be separated from Ur III glyptic. Lagash designs such as the seal of Gudea (FI 531) and a seal of Ur-Ningirsu (Dittmann 1994, Taf. 1:10) show a mixture of "Ur III" traits with features of the cult at Lagash such as snake heads. There is no artistic reason to think that these must be earlier than Ur III glyptic, and the historical evidence now indicates that they do not need to be earlier than the time of Ur-Nammu. The Lagash school thus becomes a regional, not a chronological, phenomenon.

On the other hand it is clear that classic "Ur III" traits must have come into use no later than the time of Ur-Nammu, even though nearly all the dated Ur III seal impressions belong to the time of Shulgi and later⁹. The clearest new "Ur III" trait is the "interceding female" with her two hands raised before her face. This person is not known to exist before the time of Ur-Nammu. Boehmer (1966, Taf. LII:16) illustrates a seal in Akkadian style in which a figure holds up the hands in a similar attitude. This piece could be adduced as the earliest example of the type, but when it is the only example of the figure in such a scene, out of many similar designs, one may also suggest that the gesture here is an accidental product of the wide range of Akkadian gestures, which happens to resemble the later "interceding" posture. The interceding female first definitely exists in the seal of Gudea (FI 531), in a seal dated to Ur-Nammu (BM II 469), and in a sculpture of Puzur-Inshushinak (Amiet 1976, no. 32). As explained above, these three persons were probably contemporaries, and the figure is unlikely to have originated as early as the last well-attested phase of Akkadian glyptic, i.e. the reign of Naram-Sin and the earlier years of Sharkalisharri.

Boehmer (1965, 39 n. 161, following Buchanan) isolates a group of seals which includes UE II 246 (PG 505), 249 (PG 563), 252 (PG 506), 312 (PG 557), 321 (PG 667), 325 (PG 1028), 327 (PG 673) and 328 (PG 540), which come from late graves at Ur. They are engraved in a distinctive miniature style showing contests of "Late Akkadian" type but without elaborations, inscriptions or fine details. Pollock (1985) assigns PG 505 to her Phase V, which suggests a Late Akkadian date for the beginning of this style, and 540 and 557 to Phase VI. So the group may have been in use in the Late Akkadian period and later. Since we found above that standard Late Akkadian may also have continued into the Ur III period, we cannot say that this group is later than Late Akkadian. Its significance may rather be social.

This leaves us with the "Post Akkad B" seals (Dittmann 1994), which are also sometimes called "Guti seals"¹⁰. Unlike the other groups, these seals are stylistically different both from Akkadian and from Ur III seals. Most belong to one of two scenes: a contest scene with three figures, and a presentation scene, also with three figures. The first scene may continue into the Ur III period: Fischer (1992, nos. 4-20) cites impressions dated to Shulgi and later, some of which are not particularly finely engraved or show no special "Ur III" traits. The second scene can however be differentiated from the Ur III presentation by the worshipper's hand, which is not raised in the later fashion (Collon 1982b, 111). The leading goddess, who is common in our seals, does exist in the Akkadian period, but her form here is closer to the Ur III type.

These criteria are not decisive, because one could imagine an Akkadian seal-cutter creating any of the individual figures which occur on Post Akkad B seals. Nonetheless this glyptic forms a coherent style which is exactly what we might expect a low-quality transition between Akkadian and Ur III to look like, and the unity and existence of the group is further confirmed by the shapes and materials of the seals (Sax et al. 1993).

For further information we should turn to the archaeological data. There are two important contexts to consider: the sequence at Tell Asmar and the "Second Dynasty" graves at Ur. At Tell Asmar in the Houses site level IVb was Late Akkadian and IVa included a seal impression of Shudurul (Diyala 701). Level III must be later than this, though the reasons adduced by Gibson do not prove that it must be as late as Ur III: indeed Gibson cites the Post Akkad seals from the level as evidence for its date¹¹. The material in Houses III (Diyala 683-691) includes miniature contests (686, 688) and Post Akkad B presentations (689-691). Houses IVa produced a large corpus (Diyala 603-678), most of which is standard Akkadian, but 677 is Post Akkad B in style and therefore Dittmann ascribes the beginning of this group to the time of the last kings of Akkad¹². If Diyala 585 is a member of the group, however, its style (though not in this instance the three-figure composition) may have originated even earlier. So Tell Asmar suggests that Post Akkad B material dates from the time of the last kings of Akkad to the time of Houses III which might not be much later, if the last kings of Akkad lived not long before Ur-Nammu (cf. Dittmann 1994, 87-8).

Moorey (1984) has drawn attention to the remarkable "Second dynasty" shaft graves at Ur (PG 1845-7, 1849-51), one of which (1847) is partly overlain by the "mausoleum" of Amar-Sin. Given the similarity of the contents and structures in the shaft graves, and their careful alignment with each other, it is reasonable to suppose that they

9 Haussperger 1991, 168f. This is true also of the material published by Fischer 1992.

10 A term which should be abandoned (Dittmann 1994, 97), and cf. p. 146.

11 Gibson 1982, 533, cf. Fischer 1992, 61 n. 3.

12 Dittmann 1994, 85 n. 50: Diyala 676 is out of context.

represent a single period of time earlier than the late Ur III period. The seals (UE II 281-297) are largely Post-Akkadian, including a three-figure contest (289) and Post Akkad B presentations (e.g. 293-4). UE II 281 and 295 have Ur III traits which suggest that this cemetery may have still been in use in the early Ur III period. This is not fantastic, because although the "royal mausolea" do overlie one of the shaft graves, they may represent an adapted, rather than a new use for the site, as Moorey suggests. The fact that the shaft graves were plundered at the time when the "mausolea" were constructed need not refute this, as it was no doubt done unofficially. Moorey (1984, 7-12) and Dittmann (1994, 88-94) have discussed other graves from Ur which may be contemporary with the shaft graves. The results are similar.

The conclusion is thus that Post Akkad B seals were made after the time of Naram-Sin (as we learn from Tell Asmar) and before the later Ur III period (as is indicated by Ur). They do not however necessarily represent a distinct phase in the development of the glyptic, because we know that standard Akkadian seals were made after the time of Naram-Sin, and that Ur III seals were made at least as early as the time of Ur-Nammu. Therefore we do not need to assume the existence of a period of "degeneration". The transition may have been quite abrupt in the fine quality seals, and more gradual in the coarse ones. The surprising implication is that the early Ur III engravers imitated the coarse styles which they inherited more than the fine ones; but this is not impossible.

2. South Mesopotamian pottery

The dating of southern glyptic styles ultimately depends on stratigraphic relations, which are also used to date other materials, especially pottery. The sequences in each kind of artefact do not change exactly in step with one another, and this has given rise to problems of interpretation. I discuss here some aspects of the pottery which are relevant to glyptic chronology. The stratification is essentially defined by the Diyala Region (Delougaz 1952) and the Nippur Inanna Temple sequence (Hansen 1965). Adjustments proposed by Gibson (1981, 1982) have the effect of lowering the dates of the Diyala phases in the Akkadian period.

2.1 Jemdet Nasr and ED I Periods

The end of the Late Uruk period is controversial and depends on the definition of the Jemdet Nasr period which is even more controversial (see Finkbeiner and Röhlig 1986, R. Matthews 1992). The most distinctive criterion for this period is its polychrome pottery, but this is not widely distributed and the other diagnostic forms are debatable. Nonetheless there seems to be no doubt that an interim period should be placed between the classic Late Uruk period and the beginning of ED I. Wilson (1986) defines the Jemdet Nasr period as one with polychrome pottery and *riemchen* bricks corresponding to Nippur Inanna XIV-XII and Diyala Protoliterate c (Khafaje Sin I-II). Both of these traits, the pottery and the bricks, continue into Protoliterate d (Khafaje Sin IV) which, however, she assigns to ED I.

Little difference can be detected between the seal-impressions on the Uruk IV (Late Uruk) and Uruk III (Jemdet Nasr) tablets. This is surprising, as seal styles usually change quickly, and many other indicators changed at that time in Uruk (Nissen 1986, 328-9). I am not convinced by the criteria for recognising Uruk III glyptic cited by Porada et al. 1992, 102¹³. There is not enough material to be sure that the criteria have a general application. R. Matthews (1993, 20-24) says that the closest comparisons for the impressions on the Jemdet Nasr tablets are found in the "Uruk IV" glyptic of Warka, Susa, Habuba Kabira and Jebel Aruda, though there is also comparative material from the earliest ED I of Nippur and Jemdet Nasr: "Clearly, glyptic styles ... changed more sedately than pottery, writing, or even ... bricks [in this assemblage]".

The re-assignment of Khafaje Sin IV is of the greatest importance because of the "fired steatite" cylinder seal style which is predominantly attached to this level. This style occurs also in northern Mesopotamia and in Iran, and it thus enables links to be made between the sequences. It also establishes two glyptic phases in ED I, the earlier with fired steatite and various local styles related to the Uruk style in the south, and the later with an ED I style which is more similar to early ED II glyptic (Martin 1988, 69-71).

Scarlet Ware is generally contemporary with ED I in the Diyala region and the Hamrin. It also runs later and this is likely with the two Scarlet Ware jars from Tomb 300 at Mari. It may be doubted whether red-painted sherds from the north should generally be compared to Scarlet Ware¹⁴.

¹³ Cf. Amiet 1980, 199.

¹⁴ Cf. the Mari rimsherd Lebeau 1985a, pl. XXI: 5 or the Mozan stand Buccellati and Kelly-Buccellati 1991, 34 fig. 8f, which can also be compared to Syrian materials (Schwartz and Curvers 1992, 402).

2.2 ED II and ED III periods

An ED III pottery assemblage can be recognised in all southern sites. As there is no distinctive ED II pottery assemblage throughout the south, the value of recognising an "ED II period" is questionable (Porada et al. 1992, 107-8).

2.3 The Protoimperial Period

Gibson (1981, 77-80) and Moorey (1978, 66-70) have identified a pottery assemblage which contains ED IIIB types such as goddess-handled jars and stemmed dishes, together with a range of special types such as cylindrical sieves and spouted pot supports. This assemblage is earlier than the conventional "Akkadian pottery" (Hansen 1965, figs. 41, 42), yet it cannot have ended earlier than the beginning of the Akkadian period because two graves containing this pottery assemblage also contain Early Akkadian seals (Diyala 377, Moore 37 = EGZ 318). On this basis, and on account of inscriptions and unpublished seal-impressions from the Diyala region, Gibson (1982) proposed to re-date the Diyala sequence, so that Tell Asmar Houses IV would be Late and Post-Akkadian, Houses Va-b would cover the Early-Late Akkadian period with the Northern Palace, and the levels contemporary with Houses Vb, i.e. Oval III, Khafaje Houses 1 and the Earlier Northern Palace, would all be Akkadian.

To a large extent this is clearly sound and an adjustment of one step should indeed be made, so that the "Protoimperial Period" of the Diyala sequence is assigned to the Early Akkadian period.

I am not, however, convinced by the evidence adduced by Gibson for an even greater adjustment. First, he mentions Akkadian inscriptions, including texts of Rimush and Naram-Sin, found in Level III of the Temple Oval, i.e. even earlier than the "Protoimperial Period" (Gibson 1981, 86 n. 21). These are the inscriptions Delougaz 1940, 149-50 nos. 7-11. Nos. 8-10 are said to come from a secondary context. 7 and 11 are given no exact context but only the general square designation K45. The description (Delougaz 1940, 104-6, pl. XI) shows that Oval III only existed to a depth of one or two bricks, and was entirely missing from much of square K45. The photo fig. 98 shows how little was preserved. The excavators were well aware of these inscriptions but discounted them. They thought there had originally been another building level with flat bricks, shown on fig. 97 (apparently not *in situ*), above the plano-convex Oval III, and that the Akkadian material came from there or was thrown out from the Sin Temple. The inscriptions are, moreover, fragmentary and heavily restored.

Second, a Late Akkadian seal-impression is cited from Tell Asmar Houses Va, and a Late Akkadian tablet from houses contemporary with the Northern Palace (Gibson 1981, 86 n. 20). Both of these objects come from places where there was no well-defined architecture and I am reluctant, therefore, to put much weight on them. The seal impression comes from J18:22¹⁵ which is just outside the House VII of level Vb. This house was not well preserved and no re-building was found in Va. In IVb it was apparently a courtyard area but the remains were incomplete and near the surface¹⁶. The tablet came from D16:6, described as "very meagerly built, the walls ... of pisé and therefore difficult to trace". This was apparently near the surface as nothing is shown there in the upper plan¹⁷. Gibson himself does not expect every object to be soundly stratified and he bases his argument on the large number of Akkadian objects in "presargonid" levels (1981, 79). But when part of his argument is accepted, so that "Protoimperial" is assigned to Early Akkadian, then the number of objects which are "too late" falls, and I think that it is not necessary to push this period into Late Akkadian when its links with an earlier time are so clear.

To return to the original argument, the pottery assemblage in the Kish and Khafaje graves, which also occurs in Oval III and Khafaje Houses 1 (Gibson 1981, 86 n. 21), is occasionally associated with Early Akkadian seals. But the glyptic of the A Cemetery at Kish is without exception Early Dynastic (Moorey 1978, 66) and the assemblage is also associated with the most typical ED IIIB pottery such as stemmed dishes and goddess-handled jars. We are therefore dealing with a continuation, probably quite short, of ED IIIB material into the Sargonid era, not with a time which should include the greater part of the Akkadian period. A further problem with Gibson's scheme is that it implies the abolition of the ED IIIB period. It does not seem right to me to have a scheme which does not allow for an assemblage belonging to this time, when there seems to be good evidence in a number of fields for characteristic changes which can be assigned to it (cf. Moon 1993, 156).

One might say that a scheme which assigns Oval III and Khafaje Houses 1 to the Early Akkadian period has already abolished ED IIIB, since the Earlier Northern Palace and Tell Asmar Vb are contemporary with them; but in fact this need not be so. It is true that the pottery assemblage found in the Early Akkadian graves at Kish and Khafaje occurs in these levels, but there is no reason why it should not also be earlier. The pottery alone is not a sufficient argument; indeed Gibson recognises a certain persistence of this assemblage when he stresses that the Khafaje

15 As 32.1313: Gibson 1982, pl. 67:2; Delougaz 1967, 212, pl. 25.

16 Delougaz 1967, 166-7, 172, 175, pl. 25-7.

17 Delougaz 1967, 195, 248, pl. 37-8; MAD 1 182 = TA 32,10.

graves must be later than Khafaje Houses 1 into which they are cut (1981, 80)¹⁸. Although Gibson provides reasons to date these levels to the Akkadian period (1981, 86 n. 21), they are not convincing. The Late Akkadian inscriptions from the Temple Oval area demonstrate nothing. There is no reason to suppose that the lost level above Oval III must have been chronologically adjacent to it (cf. Postgate and Moorey 1976, 157). The pottery from the burial groups is also not convincing, as I have just shown.

This leaves two seal-impressions, of which I accept one and reject the other. The seal impression As 32:1204 came from J19:60 in Tell Asmar Houses Vb. This is the area of House VII which, as described above, was not well preserved or convincingly stratified (Delougaz 1967, 212, pl. 25). Furthermore the design is not published and we only know it is Akkadian because of an alleged similarity to the seal Diyala 592¹⁹, which itself is only published as a drawing. This is not strong evidence. The seal impression As 32:1045 (Gibson 1982, pl. 67:3), on the other hand, comes from E16:27, a part of the Earlier Northern Palace where the walls were well defined and grain deposits were found on the floor. This object must be accepted if we wish to use the Diyala sequence at all. The details of the stratification here, however, are interesting. Apparently most of the Earlier Northern Palace had only one floor, but in this corner there were two, and the excavators believed that the rest of the building was already in ruins when a grain store on the upper floor was burnt and ashes were blown out from the fire (Delougaz 1967, 183, 241, 336). We are not told where the impression came from in relation to these floors, but it is tempting to combine this evidence with the information we have already that the pottery from the burial groups is connected to ED IIIB and was in use for some time. In that case, we could adopt the following scheme:

ED IIIB: standard assemblage in the Kish A Cemetery and elsewhere.

Late ED IIIB: the standard ED IIIB assemblage continues together with the special assemblage known from the Kish and Khafaje graves. This would include some late graves in Cemetery A at Kish, Oval III, Khafaje Houses 1, Tell Asmar Houses Vb, the house model at Mari (Moorey 1978, 69) and the main floor of the Earlier Northern Palace.

Earliest Akkadian: a fleeting phase with the same pottery as in the previous phase, but known to be later because of the stratigraphy and the glyptic. Here we place the upper floor of the Earlier Northern Palace, the late graves at Khafaje which are cut into Khafaje Houses 1, and the Ingharra grave 306.

Protoimperial Period: now known to be Early Akkadian, i.e. the main level of the Northern Palace and Tell Asmar Houses Va.

Of Gibson's evidence, this scheme accepts completely the proposed pottery sequence, and accepts also the Akkadian glyptic from the Northern Palace (Diyala 505) and the Earlier Northern Palace (Gibson 1982, pl. 67:3). It also accepts that the pottery assemblage in the graves continued into the Akkadian period. It rejects the two seal impressions from the Tell Asmar Houses site, area of House VII (As 32:1204, 1313), the Late Akkadian tablet from the meagre structures near the Northern Palace (MAD 1 182), and all the Late Akkadian inscriptions from the Temple Oval area. Considering the great unreliability of the later American excavations at Nippur²⁰, I think this degree of credulity is reasonable.

2.4 Akkadian Period

Gibson suggests that the effect of his adjustments to the "Protoimperial Period" is to push the "Akkadian Pottery" (Hansen 1965, 210 figs. 41, 42), which follows it, into the later Akkadian or more especially the Ur III period. According to Gibson, Tell Asmar Houses IVb contained texts dated to Naram-Sin or later, and IVa included material which is later than Naram-Sin (1982, 532). We can readily adjust the system by one phase to accommodate this information, i.e. IVb = Late Akkadian, IVa = Final/Post-Akkadian. There seems to be no reason to push either level down further.

In the case of the Akkadian jar with the pointed base (Hansen 1965, fig. 41b), this does seem to imply a very late date²¹, but Pollock assigns it to her Period IV = Early Akkadian and later (1985, 138 type 44). At Nippur (McCown et al. 1967, pl. 80:18) it occurs once in TB XII and five times in TB XI. This is in the middle of the range ascribed to the Akkadian period²². It is important to note that the dating of this sequence before the later Ur III period is not

18 The same follows from the Ash Tip at Abu Salabikh, where both the Tip and the graves which were cut into it contained "ED IIIB" pottery: Moon 1993, 156.

19 Or Diyala 582, according to Frankfort 1955, corrected by Gibson.

20 D. Matthews 1992, 64; Buchanan 1969, 374.

21 Delougaz 1952, pl. 113g, 160: B.556.540: Asmar Houses IVa.

22 McCown et al. 1967, 77 Table I, levels XIII-X, where IX = Shulgi and XIII had plano-convex bricks.

secure. The plano-convex bricks do not have to be Early Dynastic, and in general so few pottery types are assigned to the Akkadian period²³ that it is clear that a full range of Akkadian pottery is not represented. A jar of this type was found at Tell Taya, Level VII (Reade 1968, pl. 85:15) and a sherd is reported from a sounding at Tell al Rimah (J. Oates 1970, 19: Phase 1).

The jar with the ridged shoulder (Hansen 1965, fig. 42b) is given a Post-Akkadian date by Pollock (1985, 137 fig. 2, types 197-199). The Diyala sequence, however, has it from the North Palace, Tell Asmar Houses Va, and even Khafaje Houses 2²⁴. It seems probable that the type runs at least into the Early Akkadian period. Lebeau found jars of this kind in his "Early Akkadian" level at Mari and rejects Gibson's view that it is later because he found sherds of it in the ED/Early Akkadian Chantier B Level 3 (Lebeau 1985b, 135).

The squat bottle with a double carination (Hansen 1965, fig. 42a) can be even earlier (Moon 1987, 65, no. 312; cf. Numoto 1988b, fig. 42:6). We see it in the Diyala region in the Earlier Northern Palace, Khafaje Houses 1 and Tell Asmar Houses Vb-c²⁵.

Therefore though evidence can be adduced to show that the "Protoimperial assemblage" continued into the later Akkadian period (i.e. the items rejected above), there is also evidence that the "Akkadian pottery" already existed in the Early Akkadian period. My purpose in investigating this is not to deny that Gibson's conclusions may be the most appropriate if no other evidence is available, but to throw doubt on the precision of pottery dating (which seems on the whole even less reliable than dating from glyptic), and to suggest that we need not follow the "most likely" dates of the pots if we have reason to think otherwise (cf. Nissen 1993, 99).

3. The Royal Cemetery of Ur

The seriation of the graves in the Royal Cemetery of Ur by Pollock (1985) gives us a means of dating them which is independent of the glyptic. The correlation of this sequence with the cultural phases is, certainly, primarily determined by the glyptic, and therefore we should not be surprised to find that the phases proposed by Pollock do indeed correspond with the sequence of seal styles. But we can use this correspondence to test how well the seal styles correlate with the pottery types. A good correlation will give us reason to think that we can use the evidence of the cemetery to improve our knowledge of the stylistic development of the seals, in accordance with the circular argument which properly supports reasoning of this kind (Frankfort 1955, 1). I use here exclusively Pollock's 1985 article, which differs in some respects from her original thesis. There is not space here to give a full study of the material, which would require museum research, but the lists given below are based on a database which contains every grave tabulated by Woolley for which I could find a publication of the seal.

Pollock rejects the approach used by Nissen, who attempted to reconstruct the original stratigraphic relations of the graves, in favour of seriation, which is entirely independent of the stratification²⁶. Pollock's procedure was based exclusively on pottery types which occurred in ten graves or more, and on graves which contained at least two of those types (1985, 133). These are sensible precautions. The result is a date specified by the position of the grave in the seriation. In addition, other pottery types are cited in her final Table 4. These types are given a range of dates in accordance with the seriated graves in which they occur. Most of them are not very chronologically sensitive. Pollock normally cites these other pottery types only for graves which were not included in the seriation. So a narrowly defined date, within one phase, is given for the seriated graves and for a minority of the other graves. In some cases she gives ranges for several pot types which only have one phase in common. Although I have criticised such a procedure in another context²⁷, I shall here adopt narrow dates which are derived from the overlap of two or more wider ranges. Pollock also cites other types of material, glyptic, metal vessels and stratigraphy. This information is not used in the discussion below because my intention is to compare ceramic dating with glyptic dating. Pollock's phases are (1985, 139):

I	ED IIIA	IV	Early Akkadian
II	ED IIIA	V	Late Akkadian
III	ED IIIB	VI	Post-Akkadian

23 McCown et al. 1967, 78, Table II.
24 Delougaz 1952, pl. 191: D.465.360, D.466.360.
25 Delougaz 1952, pl. 111, 162, p. 107 "first appears in ED III".
26 Pollock 1985, 146; NB Mallowan and Parker (1970, 214) denied one of Nissen's basic assumptions, that a datum line was misplaced in the survey.
27 *Iraq* 53 1991, 19.

Graves for which no ceramic phase is given are counted below as "undated"²⁸. Seals are only mentioned if they come from numbered graves (many other seals are published in the Cemetery volume which did not come from defined graves). If, as I shall propose, the dates of the graves are good indicators of the dates of the seals in them, then a seal in an undated grave may properly be dated from a second seal in the same grave, the date of whose style is known.

There are not many seal styles which we can really say *a priori* are datable within one phase. It is often possible to say that a seal must date before or after the transition between Early Dynastic and Akkadian; it is much less common to be able to place a seal within a sub-phase. Thus counting only such seals, and graves which contain narrowly datable pottery types, we obtain rather small numbers. But the evidence from the Cemetery is only one of several sources for the chronology of southern glyptic.

The styles of the seals are not always assessed in the same way by different authorities. I have used my own judgement, based on a relatively small number of criteria. The procedure here is to date seals by their design composition wherever possible, for if (as is not always the case) this is chronologically sensitive, then attributions can be made on a less intuitive and therefore more reliable basis than using attributions based on engraving style. This gives a smaller number of recognised styles, but the seals belonging to them should be more securely assigned to them. Seal numbers in this section, if without a reference, are from UE II.

3.1 Datable seal styles in seriated graves

Two scene types are especially typical of ED IIIA. The first is a contest frieze with crossed animals, engraved with the richest modelling and high relief. Three of these are recorded in dated graves, two of phase I (55, 65, PG 1050, 1054) and one of phase II (63, PG 800). The second is a banquet scene in two registers, engraved in the spare precise style of the seal of Queen Puabi (FI 521). These are also confined to phases I and II, though this time we have one in phase I (21, PG 1054) and five in phase II (16-19, 27, PG 337, 800). Since there is no external reason to think that these two scenes are not contemporary, it may be that the ceramic difference between Pollock's phases I and II (both of which she assigns to ED IIIA) is not chronological but reflects some social distinction²⁹.

The "Group of Five" scene is typical of ED IIIB. A central hero is surrounded by pairs of goats and lions, without any crossing of the figures³⁰. Two of these come from dated graves, one in phase II (162, PG 482) and one in phase III (161, PG 1043). A related group is the Angular style, which includes the same subject, among others (all of Early Dynastic inspiration), but in an engraving style neither Early Dynastic nor Akkadian with its simplified forms reminiscent of the Cut Style of the Iron Age. Some Angular designs do, however, have Akkadian details such as the heads of the heroes. We have one from phase III (153, PG 347) and one from phase IV (52, PG 736).

Akkadian Early Contest scenes are easily recognisable because of their similarity in some respects to ED III, both in their general composition and in some of the details. We have only one seal of this kind from a narrowly dated grave, in phase III (324, PG 23). Late Akkadian contests are also readily recognisable. We have two from phase V (180, 246, PG 505, 689) and one from phase VI (318, PG 643). Post-Akkadian seals are discussed above (pp. 15-17).

Taking this evidence together for six easily recognised seal styles, each thought to be datable *a priori*, in graves whose pottery can be restricted to one phase, we find that each style occurs only in one or two adjacent phases, and that these phases are seriated according to the pottery in the correct order:

- I-II: ED IIIA "royal" contests and banquets
- II-III: ED IIIB "Group of Five"
- III: Early Akkadian contest
- III-IV: Angular style
- V-VI: Late Akkadian contests

Leaving aside for the moment the problem of inadequate quantity, this gives a good result, but Early Akkadian appears earlier than might be expected. Agreeing with Pollock's proposed chronology (1985, 139) both Early Akkadian and the Angular style first appear in phase III, which should be ED IIIB. We cannot assign ED IIIB any earlier, because we have already placed phase II in ED IIIA, taking PG 800 as typical for that period.

One possible solution is to suggest that Pollock has simply put her boundaries in the wrong places. The graves cited above, with the seal style and Pollock's "best fit position" (1985, 132) are:

²⁸ Although the exact meaning of "Late" and "Post-" with respect to Akkadian history is debatable, it is not helpful for Pollock to call Late Akkadian "MAkk" and Post-Akkadian "LAkk" in her final date attributions (1985, 141 n. 6). Here I am concerned only with her ceramic phases, and not with her proposed dates for the graves, so dates in this latter style are not quoted.

²⁹ Rathje 1977; cf. Selz 1983, 249-252.

³⁰ Moortgat 1940, 15; Boehmer 1969, 275.

II: ED IIIA: PG 337	54.1
II: ED IIIA: PG 800	77.0
II: ED IIIB: PG 482	58.2
III: ED IIIB: PG 1043	107.1
III: Angular: PG 347	95.8
III: Early Akkadian: PG 23	113.0
IV: Angular: PG 736	130.3

If we assume that this "best fit position" is a good indicator of relative date, then it is evident that the ED IIIB style overlaps both ED IIIA and the Angular style, and that the Angular style overlaps both ED IIIB and Early Akkadian. However, it is important that the Early Akkadian grave PG 23 is given a later position than the other Phase III graves. The earliest position assigned to a phase IV grave in Pollock's chart is PG 184 (115.1), and the latest given to a phase III grave is PG 23 (113.0). It is clear therefore that PG 23 with its Akkadian seal 324 can be reassigned to phase IV with a very small alteration in the phase boundaries. The grave may have seemed to her to be characteristically ED IIIB on account of its other contents³¹. Given Moorey and Gibson's evidence from Kish and Khafaje for the prolongation of ED IIIB pottery types into the very beginning of the Akkadian period, it should not surprise us if we find the same situation at Ur (see p. 18).

3.2 Seals whose graves are "too early"

Including now the graves for which the pottery types do not give exact dates (i.e. those not included in the seriation), and tabulating seal style against the latest date allowed by the pottery types, no anomalies are encountered except for the three which we have already encountered:

An ED IIIB seal in a Phase II grave: 162 from PG 482

An Angular seal in a Phase III grave: 153 from PG 347

An Early Akkadian seal in a Phase III grave: 324 from PG 23

I have already discussed seal 324 above, and concluded the problem could be resolved by moving the boundary of phase III/IV a fraction, or by allowing ED IIIB pottery to run slightly into the Akkadian period. Seal 162 is not mentioned by Pollock. It conforms to the general characteristics of ED IIIB, especially in the way that the figures do not cross. Perhaps its style looks a little "earlier", but I cannot guarantee that this judgement is not affected by hindsight. Perhaps ED IIIB type seals did originate in ED IIIA, but of 15 seals of this kind which come from graves for which some kind of pottery date is given by Pollock (see below), this is the only one for which the grave cannot be later than Phase II.

Seal 153 is more difficult. There are four Angular style seals in graves with pottery dates, and this is the only one which must be earlier than Phase IV. The seriated "best position" does not allow a solution by moving the phase boundary. Although the seal does not show any explicitly Akkadian details, I would nonetheless have placed it with some assurance in the Akkadian period, in company with Boehmer and Collon (BM II p. 49, no. 51) on account of its engraving style. It is not one of the Angular seals whose cutting style does not particularly remind one of Akkadian engraving, like Ashmolean 284 or BM II 34. There may have been an excavation error: Pollock suggests "?-2 graves confused, includes a much later pot" (1985, 149).

Seals 153 and 324 are the only Akkadian seals, including Akkadian seals which cannot be further dated within the Akkadian period, which are from graves placed earlier than Phase IV. 68 Akkadian seals come from graves of phases IV-VI.

3.3 "Antique" seals

The evidence so far has shown that for those seals which belong to readily recognised and dated styles, there is a very good match between the generally accepted dates of the styles and the dates proposed by Pollock for her pottery phases. This is not surprising, because the seals were the principal means used by her for dating the phases. I undertook the analysis above, however, because my own opinions on the dates of seals do not always match hers, and I wished to check that this did not affect the dating. I found that it did not do so, with one possible exception, where the effect was marginal (seal 324).

31 Pollock lists the seal as ED IIIB/Akk I, and therefore there was no problem for her. I prefer to agree with Boehmer (1965, 153 no. 437: Akk Ic) that this seal is definitely Akkadian.

The next question is whether seals were deposited in graves which are later than the date given by the seal style. Whereas in principle a seal cannot be later than the date of its context, it can easily be earlier; but if seals commonly occur in much later contexts this has implications for their use as chronological indicators.

Counting the seriated graves only, seals belonging to the six easily datable styles always occurred in graves which belonged to the "correct" ceramic phase except for the three seals discussed above which appeared to be "too early", and seal 318 which came from PG 643, assigned to Phase VI. The seal is classic Late Akkadian and Phase VI is "Post-Akkadian". Since classic Late Akkadian seals were certainly still being used in the early Ur III period (Fischer 1992), this is not surprising.

Including the non-seriated graves as well, the question becomes "do seals occur in graves whose earliest possible date is later than the date of the seal style?". We may note the following situations:

Two ED seals, exact style indeterminate, grave not earlier than Phase IV: 15 and 134 (assigned to Akkadian, perhaps rightly, by Collon: BM II 61) from PG 323 and 1163

An ED III seal in Phase IV: 166 from PG 219

Four ED IIIB seals not earlier than Phase IV: 73, 145 (possibly Akkadian, but the heroes have "ED" style heads), 157, 168 (also possibly Akkadian) from PG 861 and 867

Three ED seals, exact style indeterminate, not earlier than Phase V: 136, 141, 298 (probably ED IIIA?) from PG 397, 699, 1379. Note however Gawra I 50, a seal very similar to no. 136, which comes from Gawra VI, a stratum with an almost exclusively Akkadian assemblage. Diyala 641 has the same animals falling forward, from a final Akkadian context (Asmar Houses IVa).

One Early Akkadian seal not earlier than Phase V: 169 from PG 697.

No ED IIIA seals of the two groups described above ("Puabi" banquets or heavily modelled contests with crossed figures) are found in graves which must date later than Phase II. Seal 80 from the Phase III grave PG 391 looks like a "fired steatite" seal but it might well be later, like Ashmolean 133. It should not therefore be counted as *a priori* datable. I omit seven Akkadian (not Early Akkadian) seals from Phase VI graves because this phase belongs to the Post-Akkadian problem discussed by Dittmann 1994, and all Late Akkadian glyptic is excluded because no graves must be later than the period in which this style was used. The correct general field size here is therefore: all seals of datable style (i.e. omitting geometric styles) which are Early Akkadian or earlier, which come from graves for which some kind of pottery date is given. This is 58 ED seals, 5 Angular and other ED/Akkadian seals, and 10 Early Akkadian seals, total 73. So of those 73 seals, 11 cannot be as early as the "correct" phase.

This figure can be adjusted according to a number of considerations. First, it is not as good as it seems, as it is not certain that all of these graves must date to the phase, within the range specified by the pottery, which would exactly correspond to the seal style. Second, several of the 11 seals could possibly be dated otherwise. If 134, 145 and 168 were Akkadian, as seems possible from the engraving style, though less so from the forms of the details, then they would all be properly assigned to Phase IV. 136 might also conceivably be an Akkadian seal of the same date as its context. If it is considered allowable to place seals in the phase immediately following the "correct" phase, then all but three of the eleven anomalous seals can be accommodated. In this case, also, the probability of a correspondence between ceramic phase and style where the pottery allows a range of dates becomes higher.

I think that given the relatively small numbers and the various problems involved in the analysis that it would not be proper to attempt to place this result on a more formal statistical footing. Nonetheless I see an outcome in which seals were not usually old when they were placed in graves, and if they were old, they were almost always not more than one phase older than the time of the burial. The seriation of the graves from the pottery types thus gives us what amounts to a good guide to the dates of the seals which are found in them.

3.4 Graves with more than one seal

Another check can be made by looking at the seals which are found together in graves. If I am right in thinking that the date of a grave is a good indicator of the date of the seals in it, then irrespective of the date of a grave all the seals in it should be of about the same date. If the seals are of styles which cover not more than two phases, and if the later of those two phases corresponds to a phase within the range specified by the pottery, then our prediction of a good fit is fulfilled. By "not dated" I mean only that Pollock has not cited the pottery in her tabulation. We may look at the following cases:

PG 35 (Phase III-V): seals 156 (Early Akkadian), 178 (Akkadian), 187, 188, 369 ("Post-Akkadian"). Given my belief that "Post-Akkadian" seals are not necessarily later than Late Akkadian (see p. 15), then a Phase V date for this grave would make sense. All the seals could then be contemporary except for one seal which is one phase too old.

PG 227 (Phase I): seals 6, 48 (Early Dynastic). Both of these seals could be ED IIIA, though neither is very exactly datable.

PG 435 (Phase II-VI): seals 306 (ED IIIB), 340 (Akkadian). A Phase IV date would enable neither seal to be much out of date. It might be preferable to assign 306 to the Early Akkadian period.

PG 543 (not dated): seals 175 (Early Akkadian), 183 (Late Akkadian). These styles are one phase apart.

PG 544 (not dated): seals 167 (ED IIIB), 176 (Early Akkadian). Also one phase apart.

PG 557 (Phase VI): seals 312, 362, 365 (all Akkadian).

PG 559 (Phase III-V): seals 172 (Early Akkadian), 189 (Akkadian). A date in either Phase IV or V would fit here.

PG 635 (Phase V-VI): seals 238, 372 (both Late Akkadian).

PG 652 (Phase IV): seals 299, 343 (both Akkadian).

PG 689 (Phase V): seals 180 (Late Akkadian), 190 (Akkadian).

PG 695 (not dated): seals 310 (Early Akkadian), 357 (Akkadian).

PG 697 (Phase V-VI): seals 169 (Early Akkadian), 177 (Akkadian). A date in Phase V would fit here.

PG 699 (Phase V): seals 298 (ED), 364 (Akkadian). This grave does seem to be anomalous. It is hard to see how 298 can be later than ED IIIB, which would require the grave to be no later than Phase IV.

PG 779 (not dated): seals 61 (ED III), 62, 64 (both ED IIIA).

PG 789 (not dated): seals 29 (ED IIIA), 36 (ED).

PG 791 (not dated): seals 4 (geometric), 9 (stamp). We cannot make a comparison from this evidence.

PG 796 (Phase III-V): seals 160, 165 (both ED IIIB), 247 (Akkadian). A Phase IV date would fit here.

PG 800 (Phase II): seals 16-19, 63 (all ED IIIA).

PG 861 (Phase IV): seals 1 (geometric), 73 (ED IIIB), 76 (Akkadian). If seal 1 is ED IIIB then a Phase IV date will fit.

PG 867 (Phase IV-VI): seals 145, 157, 168 (all ED IIIB). Perhaps this is a little anomalous, nonetheless a Phase IV date will leave the seals not more than one phase too old.

PG 985 (Phase II-V): seals 344, 345 (both Akkadian). The grave could be phase IV or V.

PG 1003 (Phase IV-VI): seals 317 (Late Akkadian), 339 (Akkadian). Date to Phase V or VI.

PG 1054 (Phase I): seals 21, 55, (ED IIIA), 12, 44 (both ED).

PG 1081 (not dated): seals 132 (ED), 151 (ED IIIA).

PG 1092 (not dated): seals 311 (Akkadian), 330 ("Post-Akkadian"); date probably Phase V.

PG 1094 (not dated): seals 303, 333 (both Akkadian).

PG 1130 (Phase II-V): seals 28, 35 (both ED IIIA). A date in Phase II would fit here.

PG 1173 (not dated): seals 217, 225 (both Early Akkadian).

PG 1236 (Phase I): seals 32, 43, 54 (all ED).

PG 1237 (not dated): seals 14, 39, 40 (all ED), 22, 23 (both ED IIIA), 72 (ED II). A Phase I date would fit these seals.

PG 1276 (Phase II-IV): seals 163 (ED IIIB), 147 (Early Akkadian). A Phase IV date would fit here.

PG 1374 (Phase II-IV): seals 2 (ED), 70 (ED IIIB). A Phase III date is most likely here.

PG 1381 (Phase II-V): seals 219 (Early Akkadian), 257 (Akkadian). Phase IV is most likely here.

PG 1382 (not dated): seals 3 (geometric), 67 (ED IIIA). This grave should date to Phase I-III.

PG 1422 (not dated): seals 290, 292 (Akkadian).

PG 1845 (not dated): seals 281-3, 296-7 (all "Post-Akkadian").

PG 1847 (not dated): seals 284, 289 ("Post-Akk"), 285 (Indian), 286 (ED), 288 (Early Akkadian), 293 (Akkadian).

PG 1845 and 1847 are "Post-Akkadian" or early Ur III shaft graves as described by Moorey 1984 (see above, p. 16). These graves are rather different and should be excluded from this survey.

Of the 35 other graves listed above which have two or more seals in them, only one serious anomaly was found, where either the seals span more than two stylistic phases, or the style of the seals does not correspond to the pottery phase for the grave (PG 699: seal 298). This is convincing confirmation for the good fit of glyptic and ceramic types in the graves, and allows us to investigate the dates of several styles whose position is not obvious from other sources.

The analysis above shows how far the dates of the graves as given by Pollock's seriation can be trusted, and at the same time shows how far seals were placed in graves whose pottery belongs to a phase corresponding to the seal style. The results were as satisfactory as can be expected in this kind of analysis. A high proportion of seals were dated to phases within the ranges suggested by the pottery, and a very high proportion corresponded to the pottery phases if a lapse of one phase was allowed. This analysis took an optimistic view of the dates of graves which were not precisely dated by the pottery, but in the first analysis, in which only seals and graves which were more precisely dated was considered, a good correspondence was also obtained. Despite the lack of precision in the broader study, and the shortage of evidence in the narrower, quite a reliable result emerges. Two reservations should be remembered: Phases I and II are probably divided by social, not chronological distinctions; and "Late Akkadian" seals may have been made in both Phase V and Phase VI.

In the following discussion I shall try to assign each group discussed to one of Pollock's Phases. A solution may be considered satisfactory if the seals can all be placed in two adjacent phases, thus allowing old seals to be deposited for one phase after the time in which they were made. In this case, the style "belongs" to the earlier of the two phases. Where the material cannot be assigned in this way, and the problem cannot be explained away, then it is possible that the style in question was made during more than one phase and is therefore not chronologically sensitive.

Whereas above certain groups of seals were used to assess the dating of the Cemetery, in this section I assume that the Cemetery gives good dates for the seals, and this information is used to study the dates of various seal styles.

3.5 Crossed animal contests

Leaving aside the contests with heavy modelling, which were identified above as ED IIIA and which only occur in Phases I and II, the following crossed animal contests occur in graves dated by Pollock:

Phase I: 48 (PG 227)

Phase I-III: 148 (PG 168), 149 (PG 1322)

Phase I-IV: 49 (PG 69), 53 (PG 1420), 146 (PG 1387), 301 (PG 1105)

Phase II-III: 8 (PG 362), 152 (PG 1227)

Phase III-VI: 302 (PG 516)

Phase IV: 166 (PG 219)

PG 227 is the only grave with more than one seal which includes one of these crossed-animal contests. Seal 166 is the only object here which suggests that crossed animal contests were made after Phase II, given that we allow a lapse of one phase into phase III. The Cemetery therefore does not give clear support either to the idea that these seals were only made in ED IIIA, or to the idea that they were made in both ED IIIA and ED IIIB.

3.6 ED IIIB seals

The following 16 seals of ED IIIB style occur in dated graves. In several cases, the seals come from graves which contained more than one seal, and the inference made above from this for the likely date of the grave is given:

Phase I-IV: 66 (PG 1407), 279A (PG 1400), 280 (PG 1404)

Phase II: 162 (PG 482)

Phase II-III: 75 (PG 895)

Phase II-IV: 70 (PG 1374), 163 (PG 1276). PG 1276 contained an Akkadian seal (147) and therefore probably belongs to Phase IV. The second seal in PG 1374 (2) is geometric and thus not datable at this stage.

Phase II-VI: 306 (PG 435). PG 435 contains an Akkadian seal (340) and is therefore probably Phase IV.

Phase III: 161 (PG 1043)

Phase III-V: 160 (PG 796). PG 796 contained an Akkadian seal (247) and therefore probably belongs to Phase IV.

Phase III-VI: 165 (PG 792)

Phase IV: 73 (PG 861). PG 861 contains an Akkadian seal (76).

Phase IV-VI: 145, 157, 168 (PG 867). PG 867 only contains ED IIIB seals, but the pottery should not be earlier than Phase IV.

Undated grave: 167 (PG 544). This grave contained an Akkadian seal (176) and therefore probably belongs to Phase IV.

The narrowest, and therefore best solution is to assign Phase III to the ED IIIB period. The problem is that the ED IIIB style cannot be far from Phase II, because of seal 162, yet there is also strong evidence for an association of ED IIIB and Akkadian seals, in Graves 435, 544, 796, 861 and 1276. Thus either the ED IIIB seals in these graves are antiques, being deposited in graves which belong to a phase later than the phase in which they were made; or there is a transitional phase between ED IIIB and Early Akkadian.

3.7 Early Akkadian seals

The following 10 seals come from dated graves:

Phase II-IV: 147 (PG 1276), 170 (PG 724). Grave 1276 also contained seal 163 (ED IIIB).

Phase II-V: 186 (PG 751), 219 (PG 1381). Grave 1381 also contained seal 257 (Akkadian).

Phase III: 324 (PG 23)

Phase III-V: 156 (PG 35), 172 (PG 559), 247 (PG 796). Grave 35 also contained seals 178 (Akkadian), 187, 188 and 369 ("Post-Akkadian"). Grave 559 also contained seal 189 (Akkadian). Grave 796 also contained seal 160 (ED IIIB).

Phase III-VI: 313 (PG 703)

Phase V-VI: 169 (PG 697). This grave also contained seal 177 (Akkadian).

In addition, some undated graves contained more than one seal, including Early Akkadian seals:

Undated graves: 175 (PG 543), 176 (PG 544), 310 (PG 695), 217, 225 (Grave 1173). Grave 543 also contained seal 183 (Late Akkadian), Grave 544 also contained seal 167 (ED IIIB), Grave 695 contained seal 357 (Akkadian), Grave 1173 contained no other seals.

This evidence is best accommodated by placing Early Akkadian in Phase IV, the only problem being seal 324 in Phase III. As suggested above, this could be solved by a small change in the phase boundary. These distributions, though not conclusive, therefore place ED IIIB earlier than Early Akkadian. The earliest date to which an ED IIIB seal must be assigned is Phase II. The earliest date to which an Early Akkadian seal must be assigned is Phase III, and this could perhaps be reassigned. The latest date to which an ED IIIB seal must be assigned is Phase IV and the latest date to which an Early Akkadian seal must be assigned is Phase V. Each of these four cases could be regarded as inconclusive in itself, but they become more significant when taken together.

In graves with more than one seal, ED IIIB and Early Akkadian seals are quite often combined, and therefore we should probably think of an overlap between them. PG 35 and 543 both contained Late or "Post-" Akkadian seals as well as Early Akkadian seals, but ED IIIB seals do not combine with these styles (though there is the ED seal 286 from the late shaft grave PG 1847).

Taking all this evidence together, the Royal Cemetery supports a chronological distinction between ED IIIB and Early Akkadian seals. ED IIIB seals are characteristic of Phase III, but in one instance occur also in Phase II (seal 162, Grave 482). Early Akkadian seals are essentially Phase IV, and the one exception in Phase III (seal 324 from PG 23) may belong to a grave which should be reattributed to Phase IV. The concurrence of Early Akkadian and ED IIIB seals in the same graves suggests that an overlap between the styles is likely. This period of overlap should be placed in the earlier part of Phase IV. No ED IIIB seal needs to be later than this time, but one Early Akkadian seal must be at least as late as Phase V (169: PG 697). Graves 35 and 543 may also belong to that phase as they contain Late Akkadian glyptic.

3.8 Late Akkadian seals

In this section I shall only consider Late Akkadian seals of standard type and not "Post-Akkadian" seals.

Phase III-V: 181 (PG 395)

Phase IV-VI: 317 (PG 1003). This grave also included seal 339 (Akkadian).

Phase V: 180 (PG 689), 246 (PG 505). PG 689 also included seal 190 (Akkadian).

Phase V-VI: 238, 372 (PG 635), 316 (PG 1154), 319 (PG 445). PG 635 did not include any other seals.

Phase VI: 318 (PG 643)

Undated: 183 (PG 543). This grave also included seal 175 (Early Akkadian).

This evidence clearly supports a chronological distinction between the Early and Late Akkadian styles. A date in Phase V for Late Akkadian would place every seal listed above in the correct phase except seal 318, which is only one phase too late. Moreover Early Akkadian is associated with Late Akkadian only once in graves with more than one seal, much less often than with ED IIIB. This grave (PG 543) could be interpreted as a precocious example of Late Akkadian in Phase IV, but a date in Phase V is probably more likely. The Cemetery does not provide adequate evidence for the end of Late Akkadian as no grave is certainly later than the time of Ur-Nammu when "Late Akkadian" seals may still have been made. We therefore cannot tell whether the seal in PG 643 is more likely to be an antique or evidence for the continued production of Late Akkadian seals at that time.

3.9 Angular style

These seals are quite rare in the Cemetery:

Phase II-V: 71 (PG 1178)

Phase II-VI: 305 (PG 1001)

Phase III: 153 (PG 347). Engraving style looks Akkadian (BM II 51).

Phase IV: 52 (PG 736)

The style does not occur in graves which contain more than one seal. The distribution resembles that of ED IIIB more than Early Akkadian, but like ED IIIB it probably runs into the time of Early Akkadian to some extent. It may be more likely that 52 is an antique than that 153 is precocious, but the engraving style of 153 looks rather later than the phase of PG 347, so an attribution of all, or more likely part, of this style to Phase IV cannot be excluded.

3.10 Geometric scenes

Although not so common as at the beginning of the third millennium, geometric designs still were being made at the time of the Royal Cemetery. It should not be presumed that these seals were antiques, since there is not a single seal whose style is unquestionably earlier than later ED II (seals 47, 72) in the Cemetery³². The following patterns occur in the graves:

Chevrons: seals 78 and 124. 78 comes from PG 1172, Phase I-IV.

Lozenge: seal 79, PG 865, undated. This seal would be assigned to the Jemdet Nasr period conventionally, but I see no a priori reason to do so. Although the grave is not dated, it may provide evidence that the seal is likely to be ED III or later.

Dotted lattice: seals 3, 128. Seal 3 comes from PG 1382 which also contained an ED IIIA seal (67). Seal 128 comes from PG 1665 of Period III. The evidence thus definitely suggests that this scene belongs to ED III.

Squares: a characteristic design similar to chevrons but with the strokes bunched together and arranged in registers:

Phase II-III: 125 (PG 1083), 135 (PG 1216)

Phase II-IV: 2 (PG 1374). This grave also contained an ED IIIB seal (70).

Phase IV: 1 (PG 861). This grave also contained an ED IIIB seal (73) and an Akkadian one (76).

A date in ED IIIB (Phase III) with one example deposited in the following phase would fit this evidence.

³² Seal 80 certainly resembles an ED I "fired steatite" seal, but I suggested above that it may be later. The stamp seal 9 is not necessarily archaic as the use of stamp seals in a later period is attested at Tell Abu Salabikh (Martin and Matthews 1993, 26-7).

Festoons: seals 129, 130, 202, 203 unfortunately come from undated graves which contain only one seal. This may however be evidence that the scene is ED III or later. The general similarity of the scene to the previous group may support a date in ED IIIB.

3.11 Akkadian period: star-spade

The internal chronology of the Akkadian seals can only be judged with some confidence in the contest scenes, which comprise less than half of the whole corpus; moreover many contest scenes do not include traits clear enough to give an unequivocal date. A possible marker for the Early Akkadian period, both in contest scenes and in other designs, is the star-spade or *Sonnenzeichen*³³. Boehmer lists 63 examples of it in contest scenes (1965, 85 n. 132). They are in the range Abb. 13-159 and Nr. 15-503. Abb. 12-127 and Nr. 1-482a are assigned by Boehmer to Akkadisch I. Abb. 131, 159 and Nr. 503 are the only seals not included in that range and they are all assigned to Akkadisch II. This is compelling evidence that the star-spade can be used as an indicator for the Early Akkadian period; but some doubt might persist because of the general rarity of symbols of this kind in the later Akkadian seals (D. Collon, pers. comm.). The following examples occur in graves in the Cemetery:

Phase II-V: 270 (PG 709) Akkadian presentation

Phase IV-VI: 366 (PG 427) "Shamash" scene

Undated graves: 232 (PG 521) Early Akkadian style; 176 (PG 544) Angular style; 234 (PG 585)

Early Akkadian style; 355 (PG 901) Akkadian presentation. PG 544 also contained an ED IIIB seal (167).

This evidence does not prove that the star-spade is confined to the Early Akkadian period, though it is in conformity with such a conclusion. Our expectation is that every trait will occur in two phases, being characteristic of the earlier one and surviving in old seals into the later one. The overlap of the two ranges given above is Phases IV-V, and therefore the most likely phase in which the star-spade was made is IV. However, this argument is not as convincing as the observation that the symbol is always associated with Early Akkadian features. Nonetheless the ceramic phases could have indicated a clear date in Phases V or VI, and the fact that they did not do so supports the idea that this symbol may be used as a criterion for the Early Akkadian period.

This implies that Boehmer's ascription of seal 366 to Akkadisch III³⁴, on account of the forms of the horns and the dresses, is incorrect. These criteria are not decisive in seals such as this one in which they are not particularly carefully engraved, and Boehmer himself noted the early trait of the pair of horizontal lines above the star-spade (usually to mark off an inscription which is here not present).

4. Diyala sequence

The Diyala sequence is one of the main sources for the chronology of third millennium glyptic. Numerous seals were found in stratified contexts dating throughout the period. However the Diyala sequence is not as useful as one might expect for the later Early Dynastic period, because relatively few seals were found in the strata of that time, and most of those do not belong to readily datable styles. Problems with the details of the stratification also make it unwise to undertake a general study without more detailed research. An exceptionally high number of seals from the Diyala excavations were found in contexts which are much too late for their style³⁵. As is mentioned by Martin and Matthews (1993, 35) this is especially true of seals from temple deposits. The stratification is however probably not so secure in the house sites where the deposits are likely to have been more difficult to understand.

The data used here is taken from the publication of the Diyala seals (Frankfort 1955). For the stratification, I have assumed that the chart in that volume, Table II, is accurate for the sequence and relative chronology of the strata in the various sites. I assign Protoliterate d to ED I and shift the Protoimperial and Akkadian phases downwards by one phase each, as is discussed elsewhere (p. 17).

33 For the origin of this symbol in the Early Dynastic period cf. Boehmer 1965, 6 n. 33.

34 Boehmer 1965, 75, 172 no. 1035: cited by Pollock to date the grave.

35 Frankfort 1955, 11 Table I shows 121 "Jemdet Nasr" seals from ED contexts.

4.1 ED IIIA

Unfortunately there is not very much "ED IIIA" archaeological material from the Diyala region. It consists of ED III levels, which cannot be subdivided within the period (e.g. Abu Single Shrine I); levels which were probably closed in the ED IIIA period but seem to be largely earlier (e.g. Oval I); and levels which really do belong only to ED IIIA. These yield the following seals:

Sin X: one undifferentiated banquet scene (248);

Khafaje Houses 3 (Gibson 1982, 536): seals 309-317, of which 309-313 and 317 are archaic or provincial and 315-6 are banquets: only 314 is a contest and it is much worn;

Oval II: seals 262-273, of which 262-266 are archaic, 267, 269, 270 are undatable, 271 is ED II, and 268, 272 and 273 are contests with crossed lions, each in a different engraving style.

Other possible ED IIIA strata are either not clearly dated to that time (e.g. Tell Asmar Houses Vc, ascribed to the end of the ED period by Gibson 1982, 533) or did not produce any seals (e.g. the Small Temple).

Relatively few of the seals which probably date to this period can really be said to have unquestionable ED IIIA features. Rather more can be said to be definitely ED III because of features such as lions with frontal heads. In the Royal Cemetery of Ur there is a type of seal characteristic of the classic ED IIIA tombs which has a contest of crossed animals executed in a heavy modelled style. Unfortunately seals of this kind are rare in the Diyala: 332 and 335 are both from a context which may be as late as ED IIIB (Khafaje Houses 2).

Eleven seals show crossed animals contests which cannot be other than ED III in style³⁶. Two are in ED III contexts (477, 549), four in levels which should be assigned to ED IIIB (320, 374, 392, 554: Khafaje Houses 1-2, Tell Asmar Houses Vb), four from Early Akkadian (502, 503, 506, 562: "Protoimperial") and one from late Akkadian (576). This accords with the general expectation that seals should be found in the corresponding stratum, or the next one down, but it does not help us with ED IIIA. It may be the case that ED IIIA cannot be defined in the Diyala region through glyptic, except negatively as the phase which is later than ED II and earlier than ED IIIB.

4.2 ED IIIB

I class only five stratified seals here, nos. 353, 495, 550, 561 and 575. The earliest is 550, from Tell Asmar Houses Vc. I assign level Vb to the end of the ED IIIB period (see p. 19), so Vc should be ED IIIA-early ED IIIB³⁷. The seal is not quite typical of ED IIIB style, though it conforms to the general criteria, so the suggestion from the stratification, that it is relatively early within ED IIIB, would fit. It is therefore very unfortunate that the excavators regard the stratification of this seal as not certain.

The next two seals belong to late ED IIIB, perhaps running slightly into Early Akkadian levels: Khafaje Houses 1 (353) and the Earlier Northern Palace (495). 353 at least really should be in ED IIIB because the earliest Akkadian material was found in graves cut into Houses 1; 495 is less certain (see p. 19). Tell Asmar Houses Va (561), on the other hand, is most probably Early Akkadian. Only 575 from Tell Asmar Houses IVb (Late Akkadian) is seriously out of line.

It is important to recognise the significance of this evidence. The strata are dated in relation to the earliest Akkadian material, and this horizon is best placed in Tell Asmar Houses Va³⁸, the upper floor of the Earlier North Palace, and the graves cut into Khafaje Houses 1. These seals are coming from contexts which are immediately before this horizon (353, 550), either just before or just after it (495), and just after it (561), with one seal (575) much later. Applying the rule that seals are usually found in contexts with a date corresponding to their style and just after, this style should be assigned to a phase immediately before the beginning of the Akkadian period. The labelling of the stratification here does not depend on the seal style (as, in general it does, since the seals are primary evidence used for the calibration of the sequence), because these strata are labelled in relation to the Akkadian, not the ED IIIB, seals. Therefore despite the small amount of data, we really do have rather good evidence here that this style does belong to ED IIIB and that in this case the stratification of the seals corresponds well to their style³⁹.

Likewise the "ED IIIB" seals are conspicuously missing from the "ED IIIA" strata, both the levels identified above as securely ED IIIA and, more significantly, from all the other levels which may probably largely belong to that phase. Therefore though an "ED IIIA" style is not identified in this analysis, a phase in which such a style might

36 Seal 320 illustrates the difficulty of classification here: I have counted it as "ED III", but one could respectably describe it as a slightly simplified "ED IIIA" contest.

37 Cf. Gibson 1982, 533: transitional ED/Akkadian, but this rests on aspects of his reconstruction which I reject. See p. 18.

38 Or possibly b. See pp. 18-19.

39 The "Group of five" type is not found in the Ash-Tip at Abu Salabikh, which may mean that it originated at the end of ED IIIB and was not present at the beginning: Martin and Matthews 1993, 30.

exist, after ED II and before ED IIIB, is identified. ED IIIB seals are stratified not one but two phases later than the ED II seals⁴⁰. Therefore an "ED IIIA" phase existed in glyptic, even if nothing very distinctive can be found in it. The distribution of the crossed animal contests which have clear "ED III" features, principally lions with heads seen from above, is interestingly similar to the distribution of the ED IIIB seals. It is difficult to believe that such seals were not made in the ED IIIA period, given their similarity to the standard ED IIIA of Ur and Fara; but there is nothing in the Diyala stratification to suggest that they originated before ED IIIB⁴¹. Simpler crossed animal contests, on the other hand, without particular identifying features, certainly existed in ED IIIA (247, 268, 272, 273) and, so far as one can see, earlier too (470, 875, 893). Given that crossing was well established as a compositional principle in the later ED IIB seals, it is not surprising that simplified versions similar to ED III designs were made; but one may wonder whether the two earliest cases were really made as early as their contexts would suggest.

4.3 Eagle and animals

The eagle with horizontal animals is common as a minor motive on Early Dynastic seals⁴². It may be proposed that where the animals are in a "falling" posture, the style is later⁴³. This suggestion can be tested with reference to the material from Suleimeh, Ur and the Diyala region:

Horizontal animals:

Diyala 352: Khafaje Houses 1.

Diyala 371: Khafaje Houses 2?.

Diyala 566: Tell Asmar Houses Va.

Suleimeh 27: Level IV.

Suleimeh 59: Level VII.

Plunging animals:

Diyala 641: Tell Asmar Houses IVa.

UE II 136, from PG 397 (Pollock V-VI)⁴⁴.

In the Diyala sequence, the first type occurs at the beginning of the Akkadian period and just before, and the second type is very late in the Akkadian period. The Ur seal UE II 136 is from a grave assigned by Pollock to late Akkadian phases. Suleimeh Level IV produced Akkadian tablets; although level VII is assigned by al-Gailani Werr to the Early Dynastic period (1992, 4) it has produced early Akkadian seals (Suleimeh 50, 57). In an interesting discussion, al-Gailani Werr (1992, 32) has shown that seals with large hatched eagles and horizontal animals, like Suleimeh 59, can belong to the Early Akkadian period (e.g. BM II 239). We may therefore propose a three-stage scheme: horizontal animals are usual in ED III, developing in Early Akkadian into the type like Suleimeh 59. The type with plunging animals comes from contexts which are later than the lowest Late Akkadian strata.

4.4 Other sites

The "A" Cemetery at Kish probably belongs mainly to the ED IIIB period, running into early Akkadian (see p. 18). It is striking how many of the seals show crossed animal contest scenes⁴⁵. At Tell Abu Salabikh, a wide variety of seal styles were used on the sealings from the Ash-Tip, an ED IIIB dump of material probably from a ritual building. Martin and Matthews (1993, 35) concluded that none of the attested designs, which included many crossed animals contests, must date earlier than ED IIIB.

40 Diyala 245, 305, 457, 458, 464, 883. These are mostly ED IIA in style; ED IIB is mainly attested in Oval I which runs into ED IIIA (Diyala 254, 255, 258).

41 Diyala 320, 332, 335, 374, 392, 477, 502, 503, 506, 549, 554, 562, 576; mainly from ED IIIB and "protoimperial" strata.

42 GMA 1136, 1153, 1172-5, 1178, 1220; pl. 94.

43 In GMA 1242 and 1244 the bodies are vertical, not slanted.

44 Two other seals from Ur graves, UE II 7, 87 (PG 607, 1403) cannot be dated either by Pollock's seriation or from other seals in the same graves.

45 Mackay 1925, pl. VI: 11, 13, 14, 18; Mackay 1929, pl. XLI: 2, 3, 14, 15, 16; pl. XLII: 3.

5. Conclusions

5.1 ED II period

It has been proposed for ceramic reasons that the ED II period should be abolished (Porada et al. 1992, 107). I do not agree with this because classic ED II glyptic forms so clear a phase in the development of southern art (Porada 1991, 170). ED II glyptic is best attested at Fara, where Martin (1988) has distinguished between two groups, the ED IIA "elegant style" and the ED IIB "crossed style". Both of these styles occur in ED II strata in the Diyala region, and they are very rare in the ED IIIA Royal Cemetery of Ur.

5.2 ED IIIA Period

This period is defined primarily with reference to the Royal Tombs in the cemetery at Ur, and to the "Imdugud-Sukurru" group of seal-impressions (GMA 1004 etc) and the tablets from Fara. There is no reason in glyptic terms to assign the Imdugud-Sukurru glyptic to a different phase than the Royal Tombs of Ur, as some social and geographical differences should be expected. Seals bearing the names of royal persons from Ur belong to two groups, the heavily modelled contest scenes and the sparsely engraved two-register banquet scenes. These two groups are confined to Pollock's Phases I and II in the Royal Cemetery, but comparable material is rare elsewhere.

5.3 ED IIIB Period

This period is conventionally defined by seal-impressions of the "Mesannepadda/Lugalanda" type which are attached by royal names to the period between the ED IIIA kings and the time of Sargon. But whereas royal ED IIIA seals can be found in archaeological context in the Royal Tombs, royal ED IIIB seals cannot be assigned to an archaeological culture. Furthermore, the existence of the ED IIIB period has been called into question by Gibson (1982). Is ED IIIB nothing more than a fashion in glyptic at the courts of a few rulers of Ur and Lagash?

ED IIIB royal seals share the fine detail and heavy modelling of the royal ED IIIA seals, but show some differences in composition, especially the steep angling of figures into a compact frieze in which the figures do not have to cross over each other in the manner normal for ED IIIA. There are many ED seals of normal quality, without the fine modelling and embellishments of the royal seals, which show these two methods of composing the frieze: either with crossed figures or without them. The latter group, without crossed figures, and most typically represented by a scene with a hero in the middle flanked by pairs of goats and lions ("Group of Five"), fitted well into Phase III in the Royal Cemetery of Ur. It is not so precisely dated as were the royal ED IIIA seals: but it has a consistent distribution which is later than ED IIIA and earlier than Early Akkadian, though overlapping both. In the Diyala region, this type of seal was also precisely dated, in contexts immediately preceding the strata in which the earliest Akkadian seals were found. An investigation of the other group of mediocre quality contest friezes, with crossed figures, and therefore conventionally often assigned to ED IIIA, neither confirmed nor denied the possibility that it continued to be made in the ED IIIB period. This seems very likely for a number of reasons, such as the survival of crossing into the Akkadian period, its existence in the Angular style, pieces such as the seal of Mesannepadda's wife (UE II 216) which combine an "ED IIIB" scene with a crossed animal scene, and evidence from Kish and Abu Salabikh.

A series of geometric patterns is known on seals which are found predominantly in ED IIIB contexts (cf. Martin and Matthews 1993, 34).

5.4 Angular Style

These seals are characterised by subjects which resemble the two ED III contest scenes, with crossing and without, engraved in an abbreviated and angular style. Some Angular seals show clear Akkadian details and others do not.

Unfortunately few seals of this style are found in graves which have ceramic dates, but the Cemetery suggests that it existed in Phase III and Phase IV. This fits the stylistic reasons just mentioned, but one cannot tell if it was more common in one phase or the other or equally divided between them. It can fairly be used as a criterion for ED IIIB and Early Akkadian.

5.5 Early Akkadian

This style is defined stylistically by the presence of several features which existed in ED III but do not occur in Late Akkadian, such as the bison and long contest friezes, and by the absence of Late Akkadian features like the water-buffalo. The only historical figure with whom it can usefully be associated is Enheduanna, daughter of Sargon, and this is not entirely helpful because we do not know how long she lived and one of the seals which bears her name is Late Akkadian. In the Cemetery, Early Akkadian is best associated with Phase IV. It has a clear overlap with ED IIIB but not with Late Akkadian. A seal in a Phase III grave was best accounted for by re-assigning the grave to Phase IV, but a short overlap between ED IIIB pottery and Early Akkadian graves is also possible. Early Akkadian does however have a distribution which is consistently later than ED IIIB and earlier than Late Akkadian. Therefore its occasional association with ED IIIB pottery should not be regarded as proof that the ED IIIB period did not exist. The star-spade is a symbol which is often associated with Early Akkadian contest scenes and never with Late Akkadian contests. The Cemetery confirms this association without giving unequivocal evidence whether it is confined to Early Akkadian or not.

5.6 Late Akkadian

Seals with characteristic features of the Late Akkadian period are associated with the time of Naram-Sin. The existence of a Late Akkadian design which bears the name of Enheduanna might be seen as evidence for the origin of the style before the beginning of his reign. However it has been suggested that she lived into Naram-Sin's reign because the next lady known to have acted as high priestess of Ur was his daughter, and this would certainly be possible. Even in that case, though, the Late Akkadian style must have originated during his reign.

In the Cemetery the Late Akkadian style originated in Phase V and is clearly later than the Early Akkadian style. One seal comes from a grave which is not earlier than Phase VI.

5.7 Post-Akkadian

Fine Late Akkadian seals were still being made in the reign of Sharkalisharri, and they were still being used as late as the beginning of the Ur III period. Fine Ur III seals were introduced primarily in the later Ur III period, but all of their most distinctive features had been invented already by the time of Gudea, Puzur-Inshushinak and Ur-Nammu, who were probably contemporaries. There is no reason to assign more than one phase between the time of these rulers and the fall of the Akkadian empire in the reign of Sharkalisharri. Only one type of seal, a coarse group in some respects resembling Ur III forms ("Post Akkad B") seems to belong mainly to this phase. Other coarse and fine styles which were probably in use at the same time have distributions in time which cannot be distinguished from the distributions of late Akkadian or early Ur III styles.

B SYRIAN CHRONOLOGY

"Two obstacles provide insurmountable barriers for the uninitiated who are not directly involved in excavations in Syria ... It is impossible to ascertain ... what many excavators mean when they claim that Akkadian pottery or Akkadian levels were found ... As far as one can ascertain, there is no secure absolute chronology for early Syrian cultures" (Michalowski 1993, 76).

Michalowski's doubts are thoroughly justified, and archaeologists have an obligation to respond to them. "The arranging of material remains in their proper sequence is the basic problem of archaeology. Its solution must precede any attempt at evaluating the historical significance of a discovery" (Frankfort 1955, 1). The archaeology of the Near East in the Early Bronze Age is bedevilled by the lack of long stratigraphic sequences which can be used to underpin relative chronology. Such sequences as do exist, such as at Nippur and Tell Leilan, tend to be in different archaeological regions and it is often necessary to use glyptic to establish connections between regions; but seals, though more sensitive to change than pottery, can remain longer in use and are not as common. Furthermore, if the chronology is based on glyptic then it is difficult to assess the development of the glyptic itself without circularity. Actual seals are more valuable as chronological indicators when they come from consistent special deposits, such as in graves: in general archaeological deposits they can be extremely misleading. Seal-impressions are probably more reliable than actual seals, as they are not likely to have been kept for long periods of time; but most seal-impressions come from redeposited fill or ancient rubbish dumps.

The method used here is first to establish a chronological system, and then to trace the development of glyptic on the assumption that it is true. So far as is possible, I have tried to rest the system on evidence which is independent of glyptic; but glyptic is necessary to establish several of the most important links. In those cases I have only used glyptic types whose place in the southern sequence is quite certain.

The best procedure for the chronologist is to establish indicators which were only used for a limited span of time. Either the presence of these can be used, or both presence and absence. In the first case, an assemblage is as late as the latest object found in it. The problem here is that types often appear before the time in which they are most common. Thus occasional occurrences of types such as the "Amuq J" vertical-rim bowl, or the "Akkadian pottery" which is mainly dated to the Late Akkadian period⁴⁶, can be misleading. The absence of types on the other hand is a principle which should never be used in archaeology without caution. It became fashionable twenty years ago to try to avoid these problems by basing chronology on the relative proportions of pottery types, but this does not avoid any of the difficulties of the presence/absence method, and introduces some new ones. No amount of computing can remove the intuitive aspects of the definition of types⁴⁷; and the distribution of types is subject to functional and other factors as well as to the passage of time. Sometimes these factors are obvious and can be allowed for⁴⁸, often they are not.

I have considered absence to be significant as well as presence: thus incised Ninevite V pottery assemblages are counted as later than mixed painted and incised assemblages, even though in principle the painted sherds could all be residual survivals. This requires the exercise of personal judgment as such a rule cannot be applied mechanically; but the assumption that such judgment can be avoided, which lies behind many numerical methods, is an illusion.

The resulting system contains ten phases for the period after the Late Uruk period down to and including the Ur III period. I define the Early Bronze Age⁴⁹ as the period following the Uruk period which is covered by phases G-J in the Amuq sequence; and EB I-IV are defined as Amuq phases G-J respectively⁵⁰. The Ur III period is understood here as a phase later than EB IV, but it is hard to obtain precision because there is a hiatus in many sites at that time. I have tried to assign every seal to one of these phases. It should be obvious that the evidence will not reliably support so much precision except in a few cases where particularly good contexts are available. Therefore, in interpretation, *I have made approximate statements*, usually trying to assign trends to one of the four main periods EB I-IV. A seal is most likely to come from the phase to which it is assigned, but it could have come from one of the adjacent phases as well. The procedure is not conceived statistically, because the numbers are never large enough, but I have looked for solutions

46 Cf. p. 19, 39.

47 Cf. Roaf and Killick 1987, 217 n. 82; Hodder 1986, 130-1.

48 E.g. no-one would take the relative frequencies of decorated pottery and cooking pot ware as a chronological indicator.

49 In absolute chronology, the Early Bronze Age is roughly equivalent to the third millennium B.C., and I have sometimes referred to the millennium as a chronological marker. I do not believe that absolute methods, derived either from radiocarbon or from texts, can at present give a better relative chronology than is obtained by the means described here. Even where historical dates can be proposed, as for the Akkadian and Egyptian kings, I have not used them because it seems likely to me that a new scheme will have to be developed in the near future which is based on dendrochronology.

50 NB Amuq G has an unclear relationship with the Uruk period because there was not a sharp division between Amuq G and F (see p. 38). EB I here refers to strata which are later than a time contemporary with the Late Uruk of Habuba Kabira South.

which result in a pattern of developing traditions, in which a large part of the evidence is situated at or near the time to which it should belong if the pattern were correct⁵¹. This picture is not independent of the evidence, even though its truth cannot be proved by scientific means. It will have to be modified, sometimes radically, as more information is acquired. It is a compromise between the desire for a comprehensible story and the inadequacies of the evidence.

1. Prospectus

1.2 Sources of evidence

The main sources of evidence are local pottery sequences, linked to one another by imported pots and by seals of southern style which can be dated from the southern sequence. Four independent pottery sequences are used in different areas, as follows. The *East Anatolian Sequence* enables the western Syrian sequence in the first half of the third millennium to be understood in a way which would be difficult using Syrian materials alone. In the second half of the millennium, the Syrian sequence is self-standing, so less is said about the Anatolian material. The East Anatolian evidence is largely derived from excavations in advance of dam projects on the upper Euphrates. The sequence relies on local painted pottery assemblages which are not themselves of concern here (see Conti 1993). Their importance is that they provide an independent check on the imported wares which are found with them, such as Uruk pottery, metallic ware and caliciform ware. The best guide to the *West Syrian Sequence* remains the Amuq phases (Braidwood and Braidwood 1960). Although the original periodisation depended on imported Anatolian wares, criteria which can no longer be sustained, the phases are valid and can be defined by other means. The *East Syrian Sequence* is given by Tell Leilan (Schwartz 1988), with the details modified as in Weiss (1990) and Roaf and Killick (1987). A further phase, later than Leilan IIb, exists at Tell Taya, Tell Brak and Mari. The *South Mesopotamian Sequence* was discussed above (p. 17).

Inscriptions and works of art are also useful for relative chronology; it is however difficult to relate them to pottery assemblages or archaeological strata, and their own internal development is not as securely established as is sometimes proposed. Inscriptions belong to three phases: ED III - early Akkadian, known from Ebla, Mari, Brak, Chagar Bazar and Tell Beidar; Classic Akkadian, known from Mari, Brak and Tell Mozan; and Post-Akkadian - Ur III, known from Assur and probably from Mari and in the inscriptions of the early Hurrian rulers. Historical information is available in material from Mari, Ebla and Brak and acts as one of the prime anchors of the system, if one which has been used in too naive a way in the past. Early Dynastic sculpture occurs in a few places in Syria, notably Ebla, Mari and Tell Chuera. Although the Chuera sculpture appears to be stylistically earlier than the Ebla and Mari sculpture, problems both in dating the sculpture and in interpreting the provenances makes this not useful for chronology (cf. p. 12 n. 1). There is some Akkadian sculpture from the Euphrates region, but it is not very helpful for dating. Sculpture of Ur III type is available only from Mari.

1.2 Main linkages

All of the sequences can be connected together at the beginning of the era under discussion through their relationship with the Late Uruk culture. After this time, linkages become less certain until the cultural transformation in the middle of the millennium when stoneware or metallic ware came into use all over Syria. An argument derived from Tomb 300 at Mari enables me to propose that Leilan IIId, which represents this time in eastern Syria, should be dated to ED IIB in southern terms. Although it is sometimes suggested that metallic ware began much earlier in Syria, the evidence both from Leilan and from the Anatolian sites shows that there is a long gap between this ware and the Uruk period. I therefore count the earliest strata with metallic ware in the west as contemporary with Leilan IIId.

An important horizon is marked by the appearance of Akkadian seals in Syria. In western Syria, textual arguments relating to the Ebla archive, combined with an Akkadian seal-impression from Tell Selenkahiya, place the destruction of Ebla Palace G at the beginning of the Akkadian period⁵². Many other western Syrian sites can be assigned to periods earlier or later than this time. In eastern Syria, Tell Brak is the only important published source of stratified glyptic of the Akkadian period, and in future relative chronology should derive from the dating of the strata discussed in Chapter IV.

51 There are always some cases which do not fit the proposed pattern. Those who wish to reject this method for this reason are invited to produce a scheme which does not result in anomalies.

52 I.e. at some time in the reign of Sargon. The correlation between the beginning of Akkadian glyptic and the history cannot be stated more precisely even in the south.

PHASE	CONTI	PERIOD	AMUQ	EBLA	CHUERA	BRAK	POTTERY	LEILAN	MARI	SUMER
3		URUK				URUK				URUK
4	1	EB I	G	IIB1A			PAINTED	IIIa		JN
5							NIN V	IIIb		ED I
6							INCISED	IIIc		ED II
7	2	EB II	H				KAWE	NIN V + STONEWARE	IIId	
8										
9				EB III	I	PALACE G				EARLY LATE
10	ISHTAR A MAQUETTE									
11	3	EB IV	J				IIB2	MAIN/FS 5	IIb	
12				FS 3-4	LATE STONEWARE	LATE AKK				
13						FS 1-2	"TAYA VII"			UR III

1.3 Summary of phasing and Table

In this section I shall list the phases in my scheme in order. The numbers of the phases (1, 2, etc) are *only* used here, and are inserted only to make it possible to refer quickly to the relationships between the phases. The structure is derived from horizons, which are cultural characteristics which can be observed in more than one region. The most important linkages were summarised above and there are others. Many assemblages have to be located in the structure by counting stages up or down from horizons. This is fairly reliable when there are not too many stages; but this is not always possible.

1. *Middle Uruk period*: Middle Uruk of Susa 21-20, Sharafabad and Farukhabad. This material is earlier in ceramic terms than phase 2, and contains the earliest stratified cylinder seals.
2. *Susa 18 horizon*: This pottery horizon is defined by Sürenhagen (1986, 31) and exists in Syria at Tell Sheikh Hassan and Tell Brak, both with cylinder seals.
3. *Late Uruk (Habuba Kabira) horizon*: a pottery horizon present at Tell Brak and sites in Anatolia (Hasek Hüyük, Arslantepe, etc.: Sürenhagen 1986, 30-31). Probably equivalent to Uruk IV, but this stratum is not properly defined at Warka.
4. *Transitional period*: this phase lies between the Habuba Horizon (3) and the fired steatite horizon (4). It includes the Jemdet Nasr period in Mesopotamia, and the transitional pottery at Brak and Tell Karrana 3. In the west, the earliest EB I is stratified on top of phase 3 at Hasek and Arslantepe.
5. *Fired steatite seals horizon*: this distinctive type of cylinder seal is typical of "Protoliterate d", i.e. the earliest phase of ED I, in the Diyala region, and of the beginning of Painted Ninevite V in northern Iraq and eastern Syria⁵³. Painted Ninevite V is stratified above phase 4 materials at Tell Mohammed Arab and Tell Brak. No direct links exist with the west, but pots have been found in Turkey in middle EB I levels two stratigraphic phases above phase 3 which resemble Early Ninevite V in their forms, though not in their decoration. Some western sites probably belong here but they lack distinctive features (Dornemann 1990, 90).
6. *Late EB I*: "cyma-recta" bowls are the type fossil for Amuq H /EB II in the west, but this phase refers to the earliest attestations of them in final Amuq G. Cyma-recta bowls in graves at Chagar Bazar indicate that the type may be contemporary with a middle phase of Ninevite V, such as Leilan IIIb. In the south, we should now be in late ED I (by counting down from the previous phase), but there is no satisfactory direct connection.

⁵³ The use of these seals here could be regarded as a circular argument. I have named the phase after them because they are its most widespread marker, but the phase can also be defined across local boundaries by sequence or by pottery similarities.

7. *Early EB II*: This is the last phase of the simpler Syrian culture of the earlier third millennium before the growth of urban institutions and the intensification of southern links which took place in the later third millennium. It does not have satisfactory international links. The cyma-recta bowls continued in western Syria (Amuq H), while in the east this is the time of incised and excised Ninevite V (Leilan IIIc). In view of this general situation earlier ED II, the time obtained by counting up from phase 9 and down from phase 5, makes good sense. ED IIA seals are conspicuously rare in Syria.
8. *Metallic ware horizon*: I am assuming that the origin of Metallic Ware or stoneware took place at the same time both in the west and in the east, and with it the red-banded jars which are found in Mari Ishtar d, Kültepe 15 and Tarsus EB II. In the west, this phase is the later stage of Amuq H / EB II. In the east, Leilan IIIc and other sites show a combination of metallic ware, late Ninevite V and cooking pots with lunate lugs. This was a time of urban expansion. Tomb 300 at Mari contained a related assemblage and can be dated to late ED II (see phase 9). The existence of ED IIB seals in Syria (though not well stratified) would support the idea that the new urban expansion was connected with renewed links to the south.
9. *Early EB III*: links now exist between east and west Syria through a number of pottery types. This phase may be defined by counting from phases 8 and 10, with early caliciform pottery in early Amuq I, Hama J8 and the material under the floor of Palace G at Ebla, which has exact ceramic comparisons with the beginning of Leilan II (Mazzoni 1992b, 504). In the east, this is the time of early stoneware forms without Ninevite V and with triangular-lug cooking pots, i.e. early Chuera, early Leilan IIa, etc. At Mari, a strong link to the south is now available for the first time since phase 5. Conical cups in Chantier B 9-7 are of the southern steep ED II-IIIa type, and this phase should belong to the end of that span (ED IIIa) because of the shallow ED IIIB cups in Chantier B 6-3. Lebeau compares the tomb pottery in Tomb 300, which I placed in phase 8, to an earlier phase in the Chantier B sequence (11-9: Lebeau 1990, 351), and this is supported by an ED IIIa seal in Ishtar niveau c which is above the tomb. In Assyria, this phase is defective, but the earlier graves at Jigan represent a time after the end of the Ninevite V period.
- 10a. *Late ED III destructions*: stratigraphically, the next phase in the east is the middle phase of stoneware (Brak ED III, later Chuera, later Leilan IIa, etc.), and in the west, Ebla Palace G and later Amuq I (EB IIIB). The earliest Syrian Bottles of the later (alabastron) type are found in Kültepe 13, Late Chuera, Melebiya B and an early grave at Halawa. Brak and Ebla both show destructions which contain nothing but Early Dynastic material but which cannot be far from the Akkadian period. At Brak, this is shown by the Naram-Sin palace (i.e. Late Akkadian), which is two levels above the "ED destruction"; at Ebla, there are pottery parallels with Selenkahiya III, which contains an Akkadian sealing. The same is true of Mari, where there is apparently a general destruction in all the sites which contains nothing but Early Dynastic material, including tablets and (Chantier B 6-3) ED IIIB shallow conical cups. It also includes the *maquette architecturale* pottery which belongs to an assemblage which stands on the borderline between ED IIIB and Early Akkadian in the south (Kish, A Cemetery, etc.). To confirm this situation, there are historical links between the Mari and Ebla tablets, though neither has satisfactory historical links with the south other than an absence of any mention of Akkad. In Assyria, one could place the later graves at Tell Jigan here, two phases after the end of Ninevite V and perhaps contemporary with the S1 grave at Tell Taya which is earlier than Taya IX.
- 10b. *ED IIIB / Akkadian transitional*: this is not really a separate phase, in the sense that it probably does not represent a separate time period. It is a place to assign assemblages which belong to phase 10 in other respects but which must belong to the Akkadian period or show late features, such as a few graves from the south which contain "Kish A Cemetery" pottery and Akkadian seals; the Earlier Northern Palace at Tell Asmar; Selenkahiya III; the *maquette architecturale* at Mari; and the grave at Tell Fisna. One might place the Hypogeum of Til Barsip here: it has an essentially Amuq I assemblage, with in addition Amuq J vertical-rim bowls which, however, already existed in Selenkahiya III. The earlier form of *depas amphikypellon* connects early Tarsus EB III, Kültepe 12 and the Old Palace at Tell Bi'a which is generally contemporary with Ebla Palace G (Strommenger 1994). I place this horizon here in phase 10b because of a connection between two-handed tankards in Kültepe 12 and the Akkadian stele from Nasiriya. Another possible marker for this phase is the figurine type identified by Spycket 1985.
11. *Early Akkadian*: this phase is defined by counting down from 10 and up from 12. The next phase in the west is Ebla IIB2, Amuq J, EB IV. This is a major phase of the early Syrian civilisation and it could well run over both phases 11 and 12, but I do not know of any reliable criteria to divide it into two subphases or to relate them to the east. The later type of *depas amphikypellon* connects middle Tarsus EB III, Kültepe 11 and Tell Tainat Amuq J. In the east, the later phase of stoneware pottery starts with Brak SS and FS 5, and Leilan IIB. Taya IX probably belongs at the beginning of this stoneware phase, partly because of counting up from

phase 13, and partly because of the ED III/ Early Akkadian glyptic associated with it. Taya IX is also probably later than the Jigan graves assigned to phase 10. In the south, Tell Asmar Houses Va and Northern Palace Main Level could belong to the Early Akkadian period as the Late Akkadian material said to come from them can be disputed. The "Akkadian pottery" types, though apparently especially typical of phases 12 and 13, probably started at this time and are found in the reoccupation assemblage of the Pre-sargonic Palace at Mari which is stratified immediately above phase 10 material.

12. *Late Akkadian*: this phase is essentially defined by material associated with Naram-Sin, such as the Palace at Brak, stratified two levels above phase 10; the bowls at Mari, found in a bad context, but above phase 10; and the Late Akkadian glyptic style, found in FS 3-4 at Brak. "Classic Akkadian" tablets belong to this phase and were found in the "Sargonid level" at Brak by Mallowan and by the Oates expedition in contexts later than the SS and FS 5 buildings. They have also been found at Tell Mozan. The late stoneware culture continues in the final part of Leilan IIB, at Brak, and probably in Taya VIII (dated from its position between Taya IX and VII). Stoneware culture types such as the later kind of Syrian Bottle and the Zwillingsösenhenkeltopf exist in the Bi'a Cemetery which includes an Akkadian seal and which is later than the phase 10 Old Palace; but this cemetery could also belong to phase 11. In the south, the "Akkadian pottery" continues in Tell Asmar Houses IVb. In the west, the Amuq J / EB IV civilisation no doubt continues into this time (cf. a Syrian bottle in a late context in Kurban Hüyük III), but as stated above no precise connections can be made.
13. *Taya VII horizon*: a chronological horizon is supplied by the Taya VII bowls which also exist in Gawra VI and at Brak in FS 1-2, i.e. later than phase 12. At Brak this pottery is stratified later than Metallic ware. There are pottery parallels from these sites to the "Akkadian pottery", which runs into the Ur III period, and to other Post-Akkadian or Ur III types. Historical evidence suggests that the "shakkannakku period" seals and sculpture at Mari can be dated to this era, and also the inscriptions of the early Hurrian rulers. It is difficult to relate this material to archaeological assemblages, except at Assur, Ishtar Temple E, which included the Gawra VI *Schultervase* (Schwartz and Weiss 1992, 242), a tablet of Amar-Sin and a "shakkannakku" seal-impression. Metallic ware was still in use in the Amuq J (i.e. Phase 11-12) assemblage of Tell Selenkahiya, so it may be the case that the EB IV civilisation had expired by this time in much of Syria. This fits the great scarcity of Ur III material in Syria, as compared to Akkadian, and the gap between the latest EB and earliest MB art from Syria⁵⁴. Tarsus may be an exception, as the Syrian bottles continue in late Tarsus "EB III" in an uncanonical form.

2. Uruk Period

2.1 Middle Uruk Period

The traditional type sequence for the Uruk period comes from Uruk itself and is tied to the architectural sequences in the Eanna and Anu ziggurat areas. Unfortunately the finds from the later Uruk levels do not come from secure contexts (Finkbeiner 1986, 33) and the material from a deposit known to be overlaid by Eanna III architecture is largely unpublished (Nissen 1986, 317-319). The small finds from the Anu ziggurat are dated by style, not from their stratification (Porada et al. 1992, 98), while those from the Sammelfund, formerly thought to belong to Uruk III (Heinrich 1936, 2-5) come from one of the insecure contexts mentioned above and may in any case, like other ritual accumulations, contain antiques (Møller 1991, 9).

The deficiencies of the Uruk sequence may be partly rectified with reference to other sites in Iran and Syria, but the geographical distances involved create their own problems. Traditionally written documents and related material has been given the greatest weight, but this can give rise to circular arguments. It is not clear how far differences are chronological and how far they are functional – though of course this applies also to other kinds of material such as pottery (cf. J. Oates 1986, 250).

The most recognisable phase in the Uruk period is the Late Uruk of Habuba Kabira in Syria with its "Uruk IV" glyptic. The 'colony' at Habuba Kabira is considered to have lasted only for a short period (though with three building levels), because the material is homogenous (Sürenhagen 1986, 17)⁵⁵.

54 Wäfler 1979, 784 shows that Amuq I-J Hama Beakers are always followed by MB Combed Ware. I do not know whether any of the latter assemblages can be assigned to a date as early as the Ur III period.

55 Sürenhagen (1993) calls the "Habuba" phase "Middle Uruk", but I follow here the traditional designation of "Late Uruk" for it (Oates and Oates 1993, 171).

Taking this phase as a benchmark, further phases can be identified which are earlier and later than it respectively, though their relationships with the sequence at Uruk itself are insecure. Sürenhagen has approached the situation by describing a cultural horizon defined by short-lived pottery types which should represent the same stage at all sites (1986, 30-33). A string-cut conical cup with pouring lip described by Sürenhagen (1986, 31) is found in Susa Acropole 18 and also at Tell Sheikh Hassan in Syria where cylinder seals were used⁵⁶.

2.2 Late Uruk

When it was first discovered, Habuba Kabira was thought to be equivalent to Eanna IV, but Nissen suggested that it should precede the appearance of the earliest written tablets in Eanna IVa because such tablets were not found at Habuba Kabira⁵⁷. But as such tablets are very rare everywhere outside Uruk⁵⁸ this difference could plausibly be explained by some difference in the economic system between the metropolis and the 'colony'⁵⁹.

Sürenhagen (1993, 62, 68) says that the pottery forms of Eanna VIII-VI correspond to the pottery of the Uruk 'colonies' in Syria such as Sheikh Hassan and Habuba Kabira. The distinction between the ceramics of these two sites cannot be detected at Uruk, presumably because of mixing in the excavation. The Late Uruk monumental architecture in Eanna V-IV is later than Habuba Kabira because it is not associated with the Middle Uruk pottery types. Sürenhagen's criteria (cf. J. Oates 1993, 414) suggest that Habuba Kabira is contemporary with Eanna VII-VI and Susa 17B. The problem with this scheme is that there is then a gap between the "Habuba" phase and the Jemdet Nasr (Eanna III) period. The evidence from Tell Brak suggests otherwise (Oates and Oates 1993, 170-1), and I would think it generally unsound to rest any fine distinctions on the evidence from Uruk.

3. The Early Bronze Age

3.1 The West Syrian Sequence

3.1.1 Uruk - EB I transition

Information on this transition is deficient in western Syria, partly because of the state of publication of sites such as the Tell at Habuba Kabira. Euphrates sites such as Arslantepe and Kurban Hüyük give useful comparative information, but the relationships become less certain the further one goes up the river. Uruk materials do not fit exactly with the Amuq sequence, bevelled-rim bowls occurring in late F and early G. Braidwood defined the beginning of the Early Bronze Age by the appearance of the Amuq G grit-tempered Plain Simple Ware. The Amuq F chaff-faced assemblage is contemporary with the Uruk pottery of Habuba Kabira (Sürenhagen 1986, 21) but also runs earlier, e.g. in Kurban VIB and Hammam VB. Meyer (1992, 254-5) has pointed to the advanced features of this pre-Uruk Chalcolithic culture. It is thought that Arslantepe VIA and the lower level at Hassek Hüyük are contemporary with Habuba Kabira, because of diagnostic features such as a miniature four-lugged bottle (Sürenhagen 1986, 31). Uruk material such as bevelled-rim bowls also exists later, such as in the upper levels of Hassek Hüyük⁶⁰. Amuq G, which includes bevelled-rim bowls, thus clearly runs back at least as far as this time; it is not possible to define its beginning more exactly because there is not a sharp transition between chaff-faced and grit-tempered wares (Algaze 1993, 91-2).

3.1.2 EB I-IV

The most convenient long sequence in western Syria is still the Amuq sequence, and a four-stage system can be derived from it, as follows:

- EB I: Amuq G
- EB II: Amuq H
- EB III: Amuq I
- EB IV: Amuq J

56 J. Oates 1993, 414; Oates and Oates 1993, 171; Professor Boese told me that this conical cup does not have a short life at Tell Sheikh Hassan.

57 Nissen 1986, 328; Algaze 1993, 56.

58 Nissen 1986, 322; Dittmann 1986, 346.

59 Pittman in Ferioli et al. 1994, 198 n. 36.

60 Sürenhagen 1986, 26; Algaze 1986a, 283.

It is important to recognise, however, that this is no more than an aide-memoire and that the actual divisions must be defined more exactly. The Amuq sequence rests on two main phases of local pottery, Plain Simple Ware in Amuq G-H, and Caliciform pottery⁶¹ and smeared-wash ware in Amuq I-J. An intrusion of Anatolian pottery (Khirbet Kerak Ware and Brittle Orange Ware) enabled Amuq H-I to be distinguished (Braidwood and Braidwood 1960, 518-520). There are two main problems with this scheme. First, a chronological anchor is provided at the beginning of the sequence by the intrusion of Uruk pottery from Mesopotamia. This intrusion does not fit well into the Amuq divisions, being partly in F and partly in G. Second, the Anatolian pottery wares should not now be used as chronological markers, however convenient it once was to do so. Both of these wares had a very long history in Anatolia⁶² and one cannot usefully define an "EB III" phase in Syria by their presence. Khirbet Kerak sherds are not always found in "Amuq I" deposits (Mazzoni 1985, 9) and some may have been found in EB I sites in Syria. For this reason I do not agree with Meyer's proposal that the earliest third millennium Syrian sites should be reassigned to EB III (1992, 256-7). No dating should ever rest on imported Anatolian wares unless vessel types whose duration is known in Anatolia are present.

Nonetheless I find a four-stage system useful and it can be defined using more reliable criteria. A distinction between Amuq G and Amuq H is most conveniently made in the earlier phase in Anatolia by the presence of Late Reserved Slip Ware, and in the later phase by the presence of "cyma-recta" bowls (Dornemann 1990, 87-90)⁶³. The only problem with this division is that the cyma-recta bowls and the Late Reserve Slip Ware overlap slightly, being found together in Kurban VA, final Amuq G and elsewhere⁶⁴.

Western Syrian sites to be assigned to EB I (Hammam VI east, Halawa B, Sweyhat, Munbaqa, Hadidi 1, etc.) are discussed by Curvers (1988, 359-60) and Dornemann (1990, 90). As mentioned above, I do not agree that these sites must be assigned to a later phase because of the absence of Late Reserve Slip ware or Ninevite V ware (Meyer 1992, 256). They do not have the diagnostic features of later phases either, apart from some possible cyma-recta bowls from the top level of Halawa B which should be assigned to EB II (see below). The EB II sites in Syria are discussed by Dornemann (1990, 87).

In the later third millennium two periods Amuq I and J are recognised in sites such as Hama (Early J/ Late J), Ebla (IIB1/ IIB2), Selenkahiya and Hadidi. The distinction between them rests on criteria such as vertical or multiple-rimmed bowls⁶⁵. This bowl type is a main criterion for the last phase of the western Syrian civilisation in Ebla IIB2 and elsewhere⁶⁶. The type is common in Selenkahiya IV but it originated in III (Van Loon 1979, 111) which is more contemporary with Ebla IIB1. The same indication for the origin of vertical-rimmed bowls already in Amuq I is given by the Hypogeum at Til Barsip, whose assemblage is generally contemporary with Ebla IIB1 but which does contain vertical-rim bowls (Mazzoni 1985, 9). Some authors have sought to explain this by suggesting the tomb was opened more than once, but this seems unlikely as there were only two skeletons in it. A pottery assemblage found under the last occupation of Palace G at Ebla is related to Hama J8 (and Leilan IIa) and thus lies at the beginning of the Amuq I phase (Mazzoni 1992b, 504; 1994, 7).

Owing to the original interpretation of the Ebla material, the whole of this time is often called "EB IV" with "EB III" assigned to the earlier part of the Khirbet Kerak intrusion, Amuq H. The problem with this nomenclature is that nothing substantial is left to call EB II⁶⁷.

For our purposes the most important information from the Anatolian sites is the evidence they give for the late origin of Metallic Ware. There Metallic Ware is not found in association with the Late Reserved Slip Ware which is diagnostic for EB I, as is shown by sites such as Arslantepe, Kurban Hüyük and Lidar Hüyük (Conti 1993, 383-5). It is also missing from sites dated by Conti to Period 1D, i.e. the earlier part of Amuq H. We find it first in Conti's Period 2A (later Amuq H), as in final Arslantepe VIC. A particularly interesting case is Halawa Tell B, whose assemblage is mainly EB I (Curvers 1988, 359). Dornemann refers to cyma-recta bowls from there which should belong to EB II⁶⁸. The provenances are from squares in which only Bauschicht 1 was excavated. These squares also produced Metallic Ware (Lüth 1981, 46-7, Taf. 56). The EB I levels at Halawa B are therefore earlier. So this may indicate that Metallic Ware, certainly missing from EB I in the west, may start as early as the later part of EB II.

61 "Hama Beakers": Wäfler 1979, Strommenger 1970.

62 Sagona 1984, 125-6; Yakar 1985, 361.

63 It is important not to confuse this EB I reserve slip ware with later pottery such as the coastal reserve-slip ware (Mazzoni 1985, 10; Schwartz and Weiss 1992, 236-7) or Spiral-Burnish ware (Strommenger 1970, 83-4).

64 Marfoe 1986, 57, 108 n. 7; Conti 1993, 380-1, Period 1C.

65 Schwartz and Weiss 1992, 237, 240; Mazzoni 1985.

66 Strommenger 1970, 50 Abb. 12; Mazzoni 1985, 9.

67 Cf. Thissen 1989, 207 n. 1. Schwartz and Weiss (1992, 236, note) do not assign phase numbers because they cannot be tied to stratified sequences. This is a fair criticism of existing systems, but a phasing system should be proposed because it exposes the implications of a scheme and thus clarifies potential errors.

68 Dornemann 1990, 87: note the distinctive small ring bases are not preserved.

3.2 The East Syrian Sequence

3.2.1 The Uruk - Ninevite V transition

In general terms, the Uruk period is followed by the Ninevite V pottery in northern Iraq and eastern Syria. However evidence exists for a transitional period between them at several sites, just as there is a transition between Uruk IV and ED I in the south, filled there by Jemdet Nasr / Protoliterate c.

At Tell Karrana 3 in the Eski Mosul district of northern Iraq the top level is mostly painted Ninevite V and the fourth level is Late Uruk. The intervening levels provide evidence for a transitional period between them. Similar material exists at Tell Fisna and Tell Thuwajj (Numoto 1988a), and Mohammed Arab 1 may be contemporary. Bevelled-rim bowls occur in reduced numbers in Jemdet Nasr (Porada et al. 1992, 100) and Northern 'Transitional' levels (Oates and Oates 1993, 170, 181).

The length of the interval between the end of Uruk IV and the 'fired steatite' horizon is unclear. At Tell Brak, the 'Habuba Kabira' level in the TW site is surmounted by a 'Jemdet Nasr' level and then nine 'Transitional' levels before the appearance of Ninevite V (J. Oates 1993, 405-6). More than one phase may become recognisable during this time⁶⁹.

The absence of solid-footed goblets, Scarlet Ware and other ED I types from the north makes it difficult to correlate the beginning of ED I with the beginning of Ninevite V. A cultural horizon can perhaps be defined by the presence of the so-called 'fired steatite' style of cylinder seals. This was originally thought to belong to the Jemdet Nasr period (Frankfort 1939, 34) because it was common in the Sin Temple at Khafaje, level IV. However this has now been reassigned to the ED I period by comparison with the newer stratigraphic sequence from the Inanna Temple at Nippur (Wilson 1986, 65-8). The vast preponderance of these seals in Level IV (though there are a few earlier and later) is some evidence for the short duration of the style, but the evidence is questionable (see p. 80).

At Nineveh the contexts are imprecise but we are told that Ninevite V painted pottery is not found below the sealings, which were largely of 'fired steatite' style. The sealings derive from a level just above the bottom of this pottery down to at least 3 feet further down (Collon 1988, 1).

The implication is that the 'fired steatite' style overlapped with the 'Jemdet Nasr' period but was essentially later. Such a cultural horizon represents the beginning of the Ninevite V culture (painted pottery) and of Scarlet ware in the Hamrin and Diyala regions⁷⁰.

Tepe Gawra is the most important northern site for fourth millennium stamp seals. Levels IX-VIIIC were thought to belong to the time of Uruk IV-III, but this relies on stamp seal types and these strata may be better dated much earlier. Cylinder seals begin with level VII, but include material which cannot be earlier than ED II (Speiser 1935, nos. 43, 45), so there must have been a break in occupation⁷¹.

3.2.2 Ninevite V

The early phase of the period, in which painted pottery was made, probably began later than the beginning of the 'fired steatite' glyptic, but represents the major part of the life of that style. This corresponds to the beginning of the ED I period in the south (Khafaje Sin IV; Scarlet Ware) and to the height of the Proto-Elamite period.

It is now generally accepted that incised and excised pottery was dominant in the later part of the Ninevite V period. The longest stratified sequence, in the Tell Leilan Operation 1 sounding, was originally thought to show that both painted and incised pottery existed at all periods, but Weiss has now accepted the substance of Roaf's and Killick's criticisms (1987, 217-220) based on the more discrete levels at Tell Mohammed Arab. Incised pottery in Leilan IIIa is now considered to be intrusive; and the painted pots from a grave in Leilan IIIc are now described as 'probably archaising' – not ordinary painted Ninevite V⁷². This yields the following three phases:

1. Mainly Painted with some simple Incised (Leilan IIIa, Mohammed Arab 2)
2. Painted and Incised (Leilan IIIb)
3. Incised and Excised (Leilan IIIc-d, Mohammed Arab 3).

69 Cf. now Numoto, *al-Rafidan* 15 1994, 51-71.

70 ED I, 'Protoliterate d': Wilson 1986, 68. Cf. p. 17.

71 Porada et al. 1992, 95, cf. Perkins 1949, 193-197; Algaze 1986b, 133 n. 40; Roaf 1990, 66.

72 Calderone and Weiss 1988, 17-21; Schwartz and Weiss 1992, 235, confusingly, was not revised in the light of the 1988 Yale Conference.

3.2.3 Stoneware

There are terminological problems caused by the uncertain relationships between a number of hard grey wares in eastern Syria and northern Iraq (e.g. the 'fine clinky ware' of Leilan II, the incised pottery of Tell Taya and Tell Jigan, and various wares at Tell Brak (Fielden 1977, 247-9)). It is assumed here that these all represent a common cultural phenomenon which took slightly different forms in different places. The evidence suggests to me that these forms were all contemporary. This cannot be proved, but the distributions of the other types of material found together with stoneware are consistent with such a contemporaneity. For example, independent glyptic evidence from both Tell Leilan and Mari, as discussed below, suggests that stoneware began in the later ED II period in glyptic terms; and the evidence from Anatolia, while not so specific, does also show that stoneware commenced a significant time later than the end of the Uruk period. Again, independent glyptic evidence from Tell Brak, Tell Bi'a and Tell Selenkahiya shows that stoneware continued well into the Akkadian period. The terms "stoneware" and "Metallic ware"⁷³ are used here interchangeably without respect to finer classifications which might well be useful, but which cannot be applied satisfactorily without scientific backing (Kühne and Schneider 1988, Schneider 1989). These wares are not associated with a special range of forms. The same forms also exist in Simple Ware and there are regional formal variations between the different kinds of stoneware.

Three phases of stoneware pottery can be identified, mainly on the evidence of the bowls and beakers. The middle phase is typified by the "ED III destruction level" at Tell Brak (J. Oates 1982), which is unusually well attested with numerous whole vessels on floors. All three phases have an urban character with glyptic more closely related to southern forms than in the earlier part of the millennium.

The main part of the Chuera culture can be divided into two phases with respect to the bowls and beakers, which have rounded bases in the earlier period and are taller with flat bases in the later phase (Kühne 1976, 28). The later phase is generally equivalent to the ED III destruction at Brak. The uniform lack of Akkadian seals in sites belonging to this phase shows that it belongs mainly to the Early Dynastic period. The evidence from Tell Brak, where a minor rebuilding separates it from the phase associated with the Palace of Naram-Sin, indicates that it should be placed towards the end of the Early Dynastic period or a little later (D. Oates 1982, 193; J. Oates 1982, 205).

A third type of beaker, tall and flat-bottomed with a sharp carination at the base is later still, occurring in the Akkadian levels at Brak (J. Oates 1982, 206). This third stoneware phase belongs to the Akkadian period, as is shown by the material from Tell Brak and Tell Bi'a (Spanos and Strommenger 1993). The end of this phase is only documented at Tell Brak, where stoneware is missing from the top two third-millennium levels on the site (Oates and Oates 1994, 168).

The *Topf mit Zwillingsösenhenkel* is a round-bottomed jar with pierced lugs which has attracted some attention as an important type in stoneware and also in Simple Ware⁷⁴. The earliest cases seem to be a sherd from Tell Chuera (Kühne 1976, no. 63) from the earlier levels, and another sherd from an ED IIIA level at Khafaje⁷⁵. There are several examples to be dated to the middle phase of stoneware. The type continues as late as the cemetery at Tell Bi'a, which is Akkadian. It therefore existed for, at the least, most of the lifetime of stoneware pottery. An interesting example comes from Troy II. The *depa* from Troy II (see below) indicate that this level may be contemporary with late ED III or early Akkadian. Another example was bought by Woolley from the Amarna cemetery (Woolley 1914, pl. XXII: 9). This pot has only one lug but examination shows the trace of where the other has fallen off⁷⁶.

3.2.4 The Ninevite V - Stoneware transition

It seems most likely that Ninevite V precedes stoneware in a regular fashion, but the evidence is skewed by the different geographical distributions of the styles. Ninevite V does not exist west of the Khabur (apart from a few sherds, as at Chuera). The alleged "Ninevite V" from the upper Euphrates may be doubted⁷⁷, though it fits comfortably with the general scheme (see p. 50). East of the Khabur, stoneware occurs in a number of forms whose relationships are unclear. For this reason, a sequence established at one place might not hold good elsewhere; and in fact soundings going clearly from one period to the other are hard to find. There is a transitional period with both late

73 NB "Metallic Ware" is also used for unrelated pottery groups in Palestine (Stager 1992, 38) and Anatolia (Mellink 1965, 113).

74 Kühne 1976, 76, 115, Taf. 18, 40, Abb. B; Spanos and Strommenger 1993, 576-7. An example from Tell Brak was found out of context (Fielden 1977, pl. XIII: 14).

75 Delougaz 1952, 58, pl. 48h: Houses 3.

76 Ashmolean Museum, Oxford.

77 M. Roaf, pers. comm.

Ninevite V pottery and stoneware, equivalent to Leilan IIId, which is known at Tell Ailun, Tell Raqa'i 3, Mulla Matar, Tell Abu Hujaira 6 and the tomb in the outer town at Tell Mozan⁷⁸.

At Tell Leilan, Ninevite V in Period III precedes "fine clinky ware", which is related to stoneware, in Period II. Stratum 15 in Operation 1 at Leilan represents the transition, containing an ash layer with seal-impressions immediately beneath the fortification wall which marks an elaboration in the urban character of the city at this time. Radiocarbon dates from this ash were, unfortunately, earlier than what appears to be a secure radiocarbon determination (Robinson and Weiss 1988) for stratum 20, a *deeper* level, of c. 2500-2750 B.C. (calibrated: Schwartz and Weiss 1992, 190). The latter date comes from a carbonised grain sample which was divided and analysed in two different laboratories yielding similar results.

Parayre dated the seal-impressions from the ash layer to ED IIIA⁷⁹, but this rests on doubtful stylistic parallels. Material which is similar in style, as from Brak and Chuera, is not reliably dated itself; and material which is well dated, as from the Diyala region, is not close in style. The seals are markedly provincial and are therefore not necessarily contemporary with the most closely corresponding seals from the standard sequence. The best designs are banquet scenes for whose dating Parayre refers to Selz 1983. As Collon pointed out (1986b, 94-5), Selz' dating, especially for her earlier phases, relies largely on seals with controversial dates and on seals which were themselves dated from their style. Much of Selz' early material brings us back again to the guesses of the early students of the glyptic of Brak and Chuera.

The relationship between Leilan and other sites is of great importance, but also some complexity owing to the renumbering of the Leilan sequence after a gap was discovered in the original Operation 1 sequence at the time of the transition between Ninevite V and stoneware (see Weiss 1990b, 390). The wares at Leilan have some individual features which make comparison with Brak and Chuera uncertain, but Calderone and Weiss (1988, 14-15) assign the new Leilan IIa (which is missing from the Operation 1 sequence) to a time equivalent to the Late ED III destruction at Brak and earlier (Weiss 1990a, 208), and Leilan IIb to the Akkadian phase of stoneware. The discovery of a Ninevite V kiln in the earliest occupation of the outer town of Tell Leilan (Weiss 1990a, 208) shows that the growth of urbanism there preceded the construction of the acropolis wall in Leilan IIa. Such an early urban phase could well have existed at Brak, but stratified deposits have not been recovered from the phase preceding the Late ED destruction level which contains no Ninevite V pottery⁸⁰.

3.2.5 Tell Chuera

Of great importance for the history of Syrian glyptic is the date of Tell Chuera, where some seals and many seal-impressions have been found. By "Early Chuera" here I mean the lower levels in Kühne's work (1976), especially level 4 of the Kleiner Antentempel; by "Late Chuera" I mean the upper levels treated by Kühne. Hrouda and Orthmann have excavated material which is later than "Late Chuera", but the material is not available for comparison. There is also Mitannian and Middle Assyrian material which is not mentioned here. The date of this site has been the subject of much controversy over the years⁸¹. The almost complete absence of Akkadian material means that it can hardly run far into the Akkadian period (Kühne and Schneider 1988, 86-7). It is probably safe to say that no excavated contexts at Chuera have to date earlier than ED III, as all of the art found in context could be regarded as antique. This applies especially to the statues, which resemble ED II rather than ED III forms in the Diyala (Moortgat 1969, 36), but also to the hoard of seal impressions from the Kleiner Antentempel West-Erweiterung, which were redeposited over the buildings (Orthmann 1986a, 63). As no inscriptions have yet been found at Tell Chuera, it must be dated from its pottery and the glyptic. It is a very big site and the excavations have not penetrated deep into the stratification.

At Tell Chuera, stoneware exists throughout the sounding excavated in the Lower City by Orthmann (1986, 69). Cooking pots with triangular lugs occur throughout Kühne's sequence (1976, 99-104). This type of cooking pot replaced an earlier type with lunate lugs which existed in the Ninevite V period, starting in the transitional period before the beginning of Ninevite V. Lunate-lug cooking pots survived as late as the Ninevite V / Stoneware transition in Raqa'i 3 and Mulla Matar⁸². The combination of this pot and Metallic Ware in Tomb 300 at Mari (Lebeau 1990, 352), without Ninevite V ware, is probably contemporary. Ninevite V only occurs occasionally at Mari, as an import.

There is no evidence that the triangular-lug cooking pot existed as early as this. At Tell Raqa'i it appears in level 2,

78 Curvers and Schwartz 1990, 15; Sørenhagen 1990; Martin and Wartke 1993-4, 205; Kelly-Buccellati 1990, 130.

79 Parayre 1988, 17-18; 1987-8, 128f.; cf. Weiss 1990b, 394, 407.

80 D. Oates 1982, 190; J. Oates 1982, 207; J. Oates 1986, 249.

81 Cf. Zettler 1978; and Warburton 1985, 24: "Moortgat was evidently impatiently awaiting the discoveries of a single season, which one must suspect that he expected to clarify all the mysteries of the tell at once".

82 Oates and Oates 1991, 143; Oates and Oates 1993, 170; Curvers and Schwartz 1990, 17-18, fig. 19; Sørenhagen 1990, 147, Abb. 24.

while at Tell Melebiya it occurs in chantiers C2 and B, both considered generally contemporary with the ED III destruction at Brak. It is reported at Brak in Akkadian or later contexts and in the "ED III" destruction⁸³. At Tell Abu Hujeira, triangular-lug pots and incised Ninevite V ware are mutually exclusive (Martin and Wartke 1993-4, 215).

In the west, triangular-lug cooking pots appear in Amuq I (Braidwood and Braidwood 1960, 404) and in Kurban IV (Marfoe 1986, 58). It seems probable that they continued until the end of the EB civilisation in western Syria, e.g. at Tell Hadidi (Dornemann 1979, 116). Their appearance at Norşuntepe, Horizont VI, and Arslantepe VID2 are in levels dated by Conti after the first phase of Amuq J⁸⁴.

The implication is that the Tell Chuera material originated at a time later than the end of the lunate-lug cooking pot, and therefore later than Leilan IIId⁸⁵. Since however the later material at Chuera is roughly contemporary with the ED III destruction at Brak, it follows that the earlier Chuera material belongs to a time between Leilan IIId and Brak ED III. Such a time, earlier than Brak ED III, but later than the end of Ninevite V, is also attested at Leilan, Tell Bderi 2963, Tell Melebiya C3-4, and Raqa'i 2⁸⁶.

The end of Tell Chuera probably lies somewhere in the Akkadian period. Given the rich inventory of Akkadian objects from Brak, and the substantial volume of earth excavated in the upper levels at Chuera, the absence of Akkadian material there is probably significant. The reasons given by Zettler (1978, 349-50) for assigning much of Chuera to the Akkadian period do not seem strong to me. On the other hand a continuation into the Early Akkadian period would make good sense. There is strikingly little Akkadian glyptic from the earliest Akkadian levels at Tell Brak, and one can well imagine digging them without finding any of it. Orthmann, however, says that he has found a Late Akkadian seal at Tell Chuera in a level above Palace F (the "West Temple" of 1985). Unfortunately this seal is not published. We are told that it shows the sun-god, which causes some concern as it is not usually easy to date Akkadian seals which do not bear contest scenes⁸⁷. The palace used to be thought to be later than the levels studied by Kühne⁸⁸, but the latest report assigns it to phase 1D (Orthmann 1994, 122). This should represent a time generally equivalent to Brak ED III, so the seal, which is later than the palace, could be as early as Early Akkadian. The final material at Chuera is later than Brak "ED III" (Orthmann 1986, 69), but Kühne and Schneider (1988, 89) are almost certainly right to suggest that Chuera does not show either the beginning or the end of Metallic ware.

3.2.6 Post-Stoneware period and Tell Taya

Evidence from Tell Bi'a, Halawa, Mari, Mozan, Selenkahiya and of course Tell Brak demonstrates the wide distribution of southern-related sculpture and glyptic in Syria during the Akkadian period⁸⁹. This is in striking contrast to the lack of art of Ur III type from the north, with the exception of Assur and perhaps Mari⁹⁰. There is no reason to think that the Ur III kings ruled the Khabur Triangle, and indeed the early Hurrian royal inscriptions indicate that there were local rulers there from immediately after the Akkadian period. The seal-impression of the Hurrian ruler Talpush-atili from Tell Brak (316: D. Matthews and Eidem 1993) is in a good Late Akkadian style.

The general absence of unquestionable Ur III material, that is principally glyptic or tablets, from Syria makes it difficult to assign an archaeological assemblage to that time. Tell Taya VII is regarded as an Ur III phase, but there is no strong evidence from Taya itself for the date of this level. Much more convincing is the evidence from Tell Brak, where the glyptic shows that levels 3-4 in the FS site cannot be earlier than the Late Akkadian period. Levels 1-2, which have ceramic relationships with Taya VII (Oates and Oates 1994, 171), must therefore be later than whatever "Late Akkadian" means here. This should place Taya VII in the Post-Akkadian period at the earliest. Reade (1971, 100) suggests that Taya VII should be rather earlier than the "Ur III" of Tell al Rimah, because Rimah has better Ur III pottery parallels than Taya; against this are late Ur III / early Isin-Larsa parallels in Brak 1-2 (Oates and Oates 1994, 167, 171)⁹¹.

83 Curvers and Schwartz 1990, 7; Lebeau 1986, 11, 1987b, 11; Fielden 1977, 249; J. Oates 1982, 205.

84 Kühne 1976, 101; Conti 1993, 368, Period 3. Triangular lugs also occur in Khirbet Kerak pottery stratified in much earlier levels. This material is not the same (Kühne 1976, 101).

85 = Raqa'i 3. Cf. Thissen 1989, 203.

86 Weiss 1990a, 208; Lower Town South 7; Kulemann and Pfälzner 1988, 363, 370; Curvers and Schwartz 1990, 7.

87 Orthmann 1994, 121, period 1E (seal), 1D (palace); period 1D is assigned by Orthmann (1990, 10) to ED II-III.

88 I.e. Orthmann's phases 1C and 1D: Orthmann 1990, 25.

89 Strommenger 1991, 19 Abb. 10; Buccellati and Kelly-Buccellati 1994; Orthmann 1985.

90 Andrae 1922, 103 Abb. 76, Taf. 58: 160, Taf. 63: 159; Beyer 1985.

91 A "Cappadocian" lead figurine of a nude female found on the surface of FS might be considered evidence for occupation in that area in the early second millennium (J. Oates 1990, 146, 231, pl. 15:1; Oates and Oates 1994, 171). The type may be connected to Troy II (Emre 1971, pl. I:1) but this does not give a satisfactory date (Blocher 1987, 203). Such figurines often occur on the "trinket moulds" which were collected by Emre (1971) and Canby (1965). These moulds form a coherent group which may also include a two-headed animal, like one found on the FS surface at Brak (J. Oates 1990, 231 pl. 14:3-4, D. Oates 1987, 190 pl. 38c) and another from Assur, Ishtar G (Andrae 1922, 84 Taf. 29p). Therefore although the Assur mould does not include a nude female it may fairly be used to date the entire group, despite the doubts of Blocher

The pottery of the earliest main level at Taya, Taya IX, is typified by a kind of tall beaker which, on the strength of the only published profile, has a clear carination at the base and a flat bottom⁹². J. Oates suggests (1982, 206) that this type of beaker is most typical of the Akkadian stage of the development of stoneware, later than the ED III destruction at Brak. This implies that Taya IX-VIII belongs to the Akkadian period.

This result does not match Reade's view (1982, 74) that Taya IX is ED III and VIII-VII are Akkadian, nor with the glyptic which accords with his earlier dating. Three items have been found: an ED III seal-impression from a pit under level VIII (Reade 1973, pl. 71b, 72a); an ED IIIB - Early Akkadian Angular Style seal from shortly before or after the end of Level IX (Reade 1973, 168, pl. 71a), and a seal which bears an inscription which includes the ED III - Early Akkadian form of the sign DA, from a level VII house (Reade 1971, pl. 25b). However the last item cannot help whatever scheme is adopted, and one can certainly not regard two seal designs, neither of which was found in an original context of use, as good evidence for dating.

One pot is of a recognisable and chronologically significant foreign type (Reade 1968, pl. 85: 15), an "Akkadian jar" from Level VII considered to be especially typical of Late Akkadian or early Ur III by Gibson. This does not therefore decide between Reade's scheme or later dates. A sherd of the same jar type was found at Tell al Rimah in a deposit earlier than the one which had the best Ur III parallels (J. Oates 1970, 19, phase 1).

A more serious problem for the late date of Taya proposed here is that a gap is then left in Assyria between the start of Taya and the end of Ninevite V. This, however, is what we should expect. Roaf and Killick (1987, 224, cf. Reade 1982, 74) state that late Ninevite V does not grade smoothly into Taya IX: they are distinct. In the scheme used here this gap should correspond to ED III, which according to all the other indications we have was a prosperous and advanced time in the north. Why is it missing in Assyria?

The answer may lie in the "Akkadian" material excavated by the Japanese expeditions in the Eski Mosul region. The excavators compared what they found to Taya IX-VIII, but in the absence of other material for comparison there was nothing else they could do. It seems more likely that this material is earlier than Taya IX and that it fills the gap between Taya IX and Ninevite V. To understand the material, it is necessary to read the summary reports in Fujii (1987) and Numoto (1992) in association with the original publications in Japanese in *Al-Rafidan* where the plates have captions in English.

The cemetery at Jigan contained two phases of graves, an older series in which the flasks had shorter necks and a later series with long-necked flasks and small globular jars (Fujii 1987, 42). The oldest grave (G14) contained a late Ninevite V pot (Fujii 1987, fig. 6: 54) so it may be contemporary with Level 5 in the architectural sequence which Numoto (1992, 143) compared to Leilan IIId. The other early graves (G15, G16) are later. Both G15 and graves in the later series contained flasks with combed decoration on the shoulders or necks (Fujii 1987, fig. 6: 55, 60). Some of the globular jars in the later graves were painted red. The later level in the architectural sequence, level 4, was compared by Numoto (1992, 143) to Leilan IIa and to the "ED III destruction" at Brak, but actually the Brak parallels he cites are earlier than Brak ED III. A suitable date for this level might therefore be a phase later than Leilan IIId and earlier than Brak ED III. This is where I have placed the earlier material at Chuera and other material belonging to the first phase of stoneware without associated Ninevite V pottery. The combed decoration on the flasks is important at such an early date as this feature is sometimes used as a criterion for much later times.

How do these graves relate to Taya? In the S1 area Reade found a tomb which contained pottery which was not otherwise known at Taya. This area mainly contained Taya IX pottery, so he suggested that the grave was earlier (Reade 1971, 97, pl. 29b). It is hard to tell from the published photo, but the material looks very like the later Jigan assemblage, with long-necked flasks and small globular jars, though without any painted or incised decoration. It should be noted that long-necked flasks are reported from throughout the sequence at Brak (ED III: J. Oates 1982, no. 61; Post-Akkadian: Fielden 1977, pl. XI: 29).

Similar material was found in a grave at Tell Fisna: we see the same long-necked flasks (here undecorated) and small painted globular jars (Numoto 1988b, Grave 2, figs. 42-3). This grave however also contained pots which might be later. Numoto 1988b, fig. 42: 7-8 are Taya IX-VIII herringbone-incised jars; fig. 43: 26 is a "Taya IX" beaker; fig. 42: 6 is an "Akkadian squat bottle". This grave may therefore overlap the later Jigan graves and Taya IX.

(1987, 205-6). Moulds found at sites contemporary with the Kanesh *karum* have figures which show stronger Mesopotamian influence and do not include the small trinkets (Canby 1965, 49 n. 56). Two-headed animal figurines have been found in "Sargonid" and earlier contexts in Syria (Orthmann 1975, 212; Iraq IX pl. 15:1-3, pl. 47:1; Chuera 1959, 11 Abb. 13) and a lead animal which may have been made in such a mould was found in "Sargonid houses" at Brak (Iraq IX pl. 32:1). Assur Ishtar G is two levels beneath the Ur III level E and contains mainly ED III sculpture, but its destruction may belong to the Akkadian period on account of the head which was found in the upper fill, Andrae 1922 Taf. 39:80 (Strommenger 1960, 58). The FS figurine therefore need not be later than the Akkadian period and could be as early as ED III.

92 Reade 1968, pl. 84:8; 1971, 97; 1973, 156.

This yields the following general chronology for Assyria:

- ED II*: Ninevite V / stoneware transition; Leilan III_d; Jigan level 5 and grave G14.
- ED IIIA*: early stoneware; early Leilan IIa; Jigan Level 4 and graves G15, G16.
- ED IIIB*: middle stoneware; late Leilan IIa; Brak ED III; later Jigan graves; Taya S1 grave.
- ED IIIB / Early Akkadian*: Tell Fisna Grave 2.
- Early Akkadian*: Taya IX; Brak FS 5.
- Late Akkadian*: Taya VIII; Brak FS 4-3.
- Post-Akkadian - Ur III*: Taya VII, Brak FS 1-2.

3.2.7 Tepe Gawra VI

Tepe Gawra Stratum VI contains "Taya" material, especially "Taya VII" bowls and a "Taya VIII" incised jar (Speiser 1935, pl. 67: 84, 86, 87; pl. 68: 107). Since none of the many seals from the stratum must be later than Early Akkadian (though some could be later), this pottery is somewhat late. "Taya VII" bowls probably originated in VIII (Reade 1973, 164), so a date for the end of Gawra VI at the end of the Late Akkadian period may make sense. Standard types of southern "Akkadian" pottery also exist in Gawra VI (Speiser 1935, pl. 69: 126, 130; pl. 70: 143). These would also fit a late Akkadian date, though I suggested above that they are not impossible earlier.

4. Relative Chronology

4.1 Southern Mesopotamia and Eastern Syria: Mari

4.1.1 General situation

The remains from Mari are primarily of the Old Babylonian and Late Early Dynastic periods. The periods before and after ED III are not so well attested and the evidence for them is controversial. The Early Dynastic material has been found in a number of sites, all of which were subjected to a destruction probably near the beginning of the Akkadian period. The complete lack of identifiable Akkadian material makes it unlikely that all of these destructions could have occurred at a time later than in the reign of Sargon; but our ignorance of when the Akkadian style began and how quickly it replaced the Early Dynastic style makes it unwise to exclude any overlap between Akkadian Mesopotamia and Early Dynastic Mari.

There is moreover no proof that the destructions were in fact contemporary. We do not have a set of archaeological assemblages for comparison from the various sites (Charpin 1987, 95) and the archaic tablets found in them were not all written at the same time. The tablets from Chantier B are dated to years 20-35 of an unnamed king; those from a set found in the Presargonic Palace and elsewhere from years 8 and earlier (Charpin 1987, 96). Of course this does not prove that the destructions were not contemporary, since some of the tablets may have been old when the buildings were destroyed.

The assumption that Mari was destroyed by Sargon may also be doubted⁹³. He does not refer to its destruction in his inscriptions (Gelb and Kienast 1990, 161, 166), yet the mention of Mari in these texts is the justification for assigning a year-name of an unknown king, which does mention the destruction of Mari, to Sargon. Westenholz (1975, 115 no. 13) regards this correlation as certain, but Gelb and Kienast do not agree ("Zuweisung unsicher") and they question the translation "destruction"⁹⁴. While it is convenient to suppose that the whole of Mari was indeed burnt by Sargon, this should not be regarded as an established fact. A later date for some of the destructions is possible, though not, I think, for all of them together; and it is also possible that some or all of them occurred before the time of Sargon.

The tablets themselves do not help. They are earlier than the classic Akkadian tablets of the Late Akkadian period, and they are not very archaic because the signs are written in the correct order. Charpin suggests that they are not Early Akkadian, but this seems only to be because of the archaeological situation, the "Sargon destruction" in which they were found and the "Akkadian pottery" found in the level above the tablets in the Presargonic Palace (Charpin 1987, 95-6).

⁹³ Cf. Archi 1985, 49 n. 8!

⁹⁴ Gelb and Kienast 1990, 50, 161 n. 13; cf. Michalowski 1993, 79.

4.1.2 Chantier B and the Presargonic Palace

This step-trench was excavated, together with Chantier A, to establish the stratigraphic sequence at Mari, which Parrot had not done. Chantier A failed to provide a sequence because the massive Grand Residence was found at the top with a thick layer of levelling underneath, and the excavators sensibly changed their strategy to one of horizontal exposure (Margueron 1984, 21). Chantier B produced two good building levels at the top, but the rest, as so often with step trenches, was scrappy with little architecture or material (Margueron 1984, 26). Nonetheless the excavators went ahead and provided a good and rapid publication of the pottery (Lebeau 1985a).

Lebeau (1985a, 93-4, 126) assigned this sequence to the whole of the third millennium, from ED I to Ur III, with a fixed point in ED III for level 4. This relies on the tablets which, as I remarked above, could be Early Akkadian. A pottery assemblage in the Presargonic Palace, found on a reoccupation floor above the destruction level with the tablets, is considered by Lebeau to be later than the "ED III" of Chantier B but not as late as the Late Akkadian period (Lebeau 1985b).

Four phases may be distinguished in Lebeau's scheme. The first three are defined by different kinds of bowl or cup (Lebeau 1985a, 95), and the fourth is the reoccupation assemblage in the Presargonic Palace. There is some evidence for the dating of each phase through southern parallels.

There are three principal types of pottery in the Presargonic Palace reoccupation: a kind of cup, considered by Lebeau to be later than the Chantier B 3-5 "ED III" type; ring based jars with a ridged shoulder, similar to the "Akkadian pottery" of the south (Hansen 1965, 210 fig. 42b); and a metallic ware vessel which is related to the "red-banded jars" of the Euphrates region. The cups (Lebeau 1985b, 134, pl. I: 1, 5, 6) are similar to examples from Tell Asmar Houses IVa-Va (Early - Post-Akkadian) and Khafaje Houses 2 (ED III: Gibson 1982, 536). The "Akkadian jars" are considered to be Late Akkadian or later by Gibson, but Lebeau disagrees because of sherds found in his "ED III" levels (1985b, 135, pl. III: 4, 5). Since this jar occurs in Tell Asmar Houses Va, an Early Akkadian date is possible. Red-banded jar sherds are known in ED IIIA contexts at Abu Salabikh⁹⁵, and in a Chantier B 6 grave (Lebeau 1985a, pl. 16:1-3). If the Presargonic Palace pot (Lebeau 1985b, pl. III:3) is a later relative then it could still come from the ED period. The tablets are not earlier than ED IIIA or later than early Akkadian, as stated above. Since they were found beneath the reoccupation layer, it is likely to date after the beginning of ED III. The evidence thus suggests that this reoccupation is not likely to be earlier than ED IIIB, but it could be much later.

Chantier B level 4 produced more of the tablets, and is therefore not earlier than ED IIIA. The typical cup for this level and generally for levels 3-5⁹⁶ is a shallow conical cup of the kind assigned to ED IIIB at Abu Salabikh (Moon 1987, 3, nos. 1-3). Lebeau 1985a, pl. IX: 5 is a distinctive inner ledge-rim cup from Level 4. This pot has Akkadian affinities (Gibson 1972, 162, fig. 34 Akkadian E; Tell Asmar Houses IVa-b), but it also occurs in the A Cemetery at Kish (Mackay 1929, pl. LIV: 4, 20). The A cemetery does run into the Akkadian period, but the bulk of it is ED IIIB (Moorey 1978, 66). Level 4 also produced a stemmed dish and a spouted jar (Lebeau 1985a, pl. IX: 6, 9). Stemmed dishes are an ED III type which can occur in the Early Akkadian period (Gibson 1981, 78). At Abu Salabikh, spouted jars disappear in ED IIIB (Moon 1987, 128), but Gibson notes their survival into the Akkadian period (1981, 77).

The next type of bowl⁹⁷ is a steeper conical cup of the kind assigned at Abu Salabikh (Moon 1987, 3, nos. 40-48, etc.) to ED II-IIIa.

The fourth bowl type is flat based and hemispherical, and is related by Lebeau (1985a, 95) to ED I sites in the Hamrin. There seems to be no reason to make such a comparison when Syrian parallels are available in the earlier levels at Tell Chuera and Tell Bderi (Kulemann and Pfälzner 1988, 363). The ED I assemblage of the south is not present at Mari as there are no solid-footed goblets (Lebeau 1985a, 94).

This evidence suggests that a fixed point can be established in Chantier B by comparison with the conical cups of Abu Salabikh, between levels 8-9, which should not be later than ED IIIA, and levels 3-5, which should not be earlier than ED IIIB. Levels 3-5 may run slightly into the Akkadian period, like the Earlier Northern Palace at Tell Asmar and the A cemetery at Kish. This still leaves room to agree with Lebeau in assigning the reoccupation of the Presargonic Palace to the Early Akkadian period, though it could be later.

The date of levels 13-9, assigned to ED I by Lebeau, is more difficult. The reasoning above does not imply a date earlier than ED II (cf. Roaf and Killick 1987, 226 n. 122). Ninevite V incised ware and a Scarlet ware sherd are reported from this time. Apart from the inherent problems in relying on sherd evidence, both of these wares could be as late as ED II⁹⁸. Lebeau cites also a kind of polished grey ware bowl with a flat base and straight sides (1985a, 94,

95 Moon 1987, 71, nos. 363, 364, 366; Moorey 1976, 164.

96 Lebeau 1985a, pl. III: 1, 3-9, pl. IX: 2-4, pl. X: 8-10, pl. XI: 6-8.

97 Levels 8-9: Lebeau 1985a, pl. XVIII: 12-14, pl. XX: 10.

98 Cf. the Scarlet Ware jars from Tomb 300: see below.

pl. XXV: 40, Level 11), found in ED I in the Diyala region and elsewhere. This bowl also resembles the "Late ED III" stoneware from Brak (J. Oates 1982, nos. 6-10). A bowl of this kind from Kish⁹⁹ is reported together with a "Syrian Bottle" of a type which is certainly not early third millennium¹⁰⁰.

There seems therefore to be no reason to assign these levels to ED I, and indeed some reason not to. Lebeau mentions the presence of metallic ware sherds from Level 12 onward. The material from Tell Leilan and the Upper Euphrates, discussed elsewhere, suggests that this ware did not exist in the earlier parts of the third millennium.

Lebeau (1987a) extends the sequence, suggesting that Levels 9-11 are late ED I and level 18 represents early ED I. The material is scanty and comparisons have to rely on sherds. This has two problems. First, sherds, particularly in small numbers, are more likely to be out of context; and second, one cannot compare the form of the whole pot. Most of the material is from Levels 13-14. A lunate-lug cooking pot sherd from Level 13 (pl. I: 8) can date from any time in the Ninevite V period, as discussed above (p. 42), though not later. The round-based bowls (pl. I: 1, 4, pl. II: 20) are of the kind typical of the earlier levels at Chuera. Material related to Incised Ninevite V (pl. II: 3, 10, pl. IV: 16) should belong to the later part of the Ninevite V period. The lugged jar (pl. III: 9) has no foot and therefore is closer to Incised than to Painted Ninevite V jars¹⁰¹. Very little is reported from the levels before this time. The absence of Painted Ninevite V ware from the lower Khabur (S. Kulemann, pers. comm.) makes it difficult to make secure comparisons.

Taking all this evidence together the following scheme makes good sense and contradicts none of the evidence known to me:

Levels 13-14: Late ED I - early ED II. Incised Ninevite V.

Levels 12-10: Late ED II: Incised Ninevite V and Metallic ware.

Levels 9-7: ED IIIA: Steep-walled conical cups.

Levels 6-3, Presargonic Palace, lower floor: ED IIIB, perhaps running slightly into Akkadian.

Shallow conical cups. "ED III" destruction and tablets.

Presargonic Palace, reoccupation floor: Early Akkadian or later. "Akkadian pottery".

4.1.3 Ishtar Temple

Four levels were recognised in the excavation of the temple. The top one (niv. a) represents the late ED destruction. Archaeological material is not otherwise clearly related to the sequence, except for one plate of pottery from the lowest level, niveau d (Parrot 1956, 222 fig. 107). Although the glyptic is probably largely out of context (Amiet 1985a, 477) a seal confirms that the top level is no earlier than ED IIIB¹⁰². Amiet has drawn attention to an unpublished seal from niveau c whose description says that the scene shows an "animal à bois" and a "lion à mufle aplati"¹⁰³. If this means a scene with a deer and a lion with frontal head then it is most likely that we are in ED III, and as this is the third level from the top it is not likely to be later than ED IIIA.

Tomb 300 was located under niveau c (Jean-Marie 1990, 309) and may therefore be earlier than ED IIIA. Its assemblage has been reconstructed by Lebeau (1990). He says the pottery generally resembles Chantier B 9-11 which probably correlates with the phase of overlap between Metallic ware and Ninevite V ware. Although no Ninevite V ware is reported from the tomb a cooking pot with lunate lugs¹⁰⁴ is, as discussed above, not known after this phase. Confirmation is provided by the tall metallic ware beaker pl. I: 7 which is similar to beakers found in the Ninevite V / Metallic Ware tomb at Mozan (Milano et al. 1991, 34 fig. 8: a-d). Connections with southern Mesopotamia are provided by a crescentic axe, which resembles southern examples dated to ED II-III¹⁰⁵ and by two Scarlet Ware jars. These might seem to give reason for a connection with ED I, but they are not typical and Delougaz thought they should be assigned to ED II¹⁰⁶.

Lebeau prefers an earlier date in ED I, especially on account of the flat-based cups which he relates to material from the Hamrin (1990, 354, pl. I: 1-4). I do not find this convincing, because similar cups exist from much later contexts at Brak, Chuera and Nuzi¹⁰⁷. The type does not seem to me useful as a chronological indicator. Lebeau also cites a strong similarity with Tell Melebiya, Chantier Périphérique (Lebeau 1990, 352), but the date of this material

99 Delougaz 1952, 58 n. 92; Watelin and Langdon 1934, pl. XVI:2.

100 Belief in Lebeau's early chronology leads Thissen (1989, 206) to see precocious developments in eastern Syria.

101 Roaf 1983, 73 fig. 4: 11, 92 pl. 2: 94.

102 Parrot 1956, pl. LXV: 566; cf. Porada 1961, 162.

103 Amiet 1985a, 477; Parrot 1956, 191, M.1061.

104 "Tenons arqués": Lebeau 1990, 351 n. 14, pl. IV: 1.

105 Philip 1989, 48; cf. Tubb 1982.

106 Delougaz 1952, 141, cf. Gibson 1981, 80.

107 J. Oates 1982 no. 95; Kühne 1976 nos. 105-111 (late Chuera); Starr 1939, pl. 51 A-C.

rests in turn on its relationship to the earlier material at Chuera (Lebeau 1986, 10), which in my view does not date as early as ED I. Some of the Melebiya bowls have pointed bases like in Ninevite V, but there is also a classic Metallic ware bowl (Lebeau 1986, pl. I: 6, 7, 8). Chantier Périphérique may thus conveniently be placed at a time contemporary with the Ninevite V / Metallic ware transition, and an ED II date seems reasonable for Tomb 300.

Peltenburg (1995, 8) suggests that the Mari tombs may have stood above the ground surface. If so, niveau d is later than Tomb 300¹⁰⁸. But in any case, given the evidence for a relatively early date for niv. c, niv. d with its red-banded jars is not likely to date long after the beginning of metallic ware.

As a rough correlation, we may propose:

Niveau a: Late ED destruction, cf. Chantier B 4

Niveau c: Probably ends in ED IIIA, cf. Chantier B 9-7

Tomb 300: Late ED II, cf. Chantier B 9-11

Niveau d: ED II

4.1.4 Maquette Architecturale

A street was found near the temples of Ishtar and Ninni-zaza which was preserved in good condition. Carefully and deliberately placed beneath the earlier level of the street, which corresponds to the last Early Dynastic level at Mari, was a house model which was packed with some thirty pots (Parrot 1967, 293-8). Moorey (1978, 69) has shown that this pottery corresponds to the grave assemblage identified by him and by Gibson at Kish, Khafaje and elsewhere, whose date is ED IIIB running into early Akkadian. This house model thus provides confirmation that the final Early Dynastic level at Mari may overlap with the "Protoimperial period" of the south.

4.1.5 Western links

To summarise the argument above, Mari relates primarily to the north in the late Ninevite V period and to the south in ED III. There is no reliable material connecting with the south which dates earlier than ED III, apart from some ED II cylinder seals which may not be in context, and little connection with the north after the time of Tomb 300. Nonetheless it seems likely that Chantier B 9-7 and Ishtar Temple c are not later than ED IIIA in southern terms. Since this material is later than Tomb 300 and Chantier B 12-10, which relate to the Ninevite V / Metallic Ware transition in the north, it follows that this transition should be earlier than ED IIIA. However the transition cannot be very early, because the whole of the rest of the Ninevite V period is earlier than it. It therefore seems to me that we can date the transition quite reliably to ED II, and even late ED II. This comes from four pieces of evidence. First, Tomb 300, which belongs to the transition, lies under niveau c of the Ishtar Temple, which is probably ED IIIA. Second, the ash layer at Tell Leilan, which also represents the transition between Ninevite V and Metallic Ware, was dated on independent, if not entirely secure grounds, to ED II-IIIa (see above). Third, the transition goes generally with an increase in the level of civilisation in Syria which was associated with an influx of southern practices (Weiss 1990a, 215). ED IIB cylinder seals are much more common in Syria, and especially at Mari, than are ED IIA ones. Fourth, three phases of Ninevite V (i.e. Leilan IIIa-c) precede the transitional period. Their beginning is approximately contemporary with the beginning of ED I, as was shown above. The later the transition is placed, the more conformity there is between the rate of cultural change north and south. These arguments do not represent a solid proof, but they seem to me likely and the best approximation available at present.

Since Painted Ninevite V does not exist in the lower Khabur an exact correlation cannot be made for the period before the transition. However it is natural to associate Chantier B 13-14 with Leilan IIIc. Both are periods immediately before the transition and both have incised Ninevite V pottery. The date of the earlier material from Mari does not in any case matter here since no further arguments depend on it. So the following scheme may be proposed:

Chantier B 13-14: Incised Ninevite V = Leilan IIIc, Tell Raqa'i 4. Should be earlier than ED IIB, need not be earlier than ED IIA.

Chantier B 12-10, Tomb 300: Transitional Ninevite V / Metallic Ware. Probably ED IIB. This transition corresponds to Leilan IIIId, Tell Raqa'i 3, Tell Mulla Matar and the tomb at Tell Mozan. Since lunette-lug cooking pots were used in these sites, we are still probably earlier than the Tell Chuera material. Ishtar Temple niveau d may belong to this phase. This gives a date for the beginning of the red-banded jars which are found at several sites in the region of the Euphrates bend and also at Tarsus EB II (Mellink 1989, 322-3).

¹⁰⁸ See the section, Jean-Marie 1990, pl. XI.

Chantier B 9-7, Ishtar Temple c: ED IIIA. Mari now has a more southern assemblage and it is more difficult to make northern comparisons. Nonetheless the earlier material at Chuera and Bderi must fit here. It should not be any earlier, because of the cooking pot lug shapes, and should not be any later, either, because space must be found towards the end of the ED period for the later material at Chuera. The same reasoning places early Leilan IIa here, and with it Tell Raqa'i 2 (Curvers and Schwartz 1990, 7).

Chantier B 6-3, Ishtar Temple a, Maquette architecturale, Presargonic Palace, lower floor, etc: ED IIIB, probably running slightly into Akkadian. This is the time of the "Sargon destruction" at Mari and of the archaic tablets. Again, direct correlations with the north are difficult, but the general historical situation suggests contemporaneity with the "ED III destruction level" at Brak and with it the later material at Tell Chuera, later Leilan IIa (Weiss 1990a, 208), later Bderi, Melebiya Chantier B, etc. At this time the most crucial link with the west can be made on account of the historical connections between the kings of Mari and Ebla. The destruction of Ebla does not have to be exactly contemporary with the fall of Mari, but in general Palace G should be contemporary with this phase. Red-banded jars from Chantier B 6 (Lebeau 1985a, pl. 16: 1,3) will be contemporary with some of the later jars of this kind in the west, as at Selenkahiya and Hadidi.

Presargonic Palace reoccupation: Early Akkadian or later. The late phase of stoneware should have started by this time at Brak, as this is probably the time of the SS building there. Direct links with Mari cannot however be made. Some final material from Chuera may belong to this time.

4.1.6 Ur III period

Durand (1985) proposed that the "shakkannakku period" at Mari dates to the Ur III period, and I am inclined to agree with his arguments, though there are reasons against them¹⁰⁹. An important detail is the discovery of a seal-impression of "shakkannakku style" in the Ishtar Temple at Assur, level E, which also contained a tablet of Amar-Sin. Ur III glyptic is otherwise strikingly absent from the north. Of the two certain Ur III tablets at Mari, one has no secure provenance and the other seems to be attached to Mari by a museum error (Lafont 1987). Such an error might also account for the Ur III tablet from Byblos (Dossin 1969), and the alleged "Ur III governor" of Byblos requires heavy restoration of the signs (Sollberger 1959-60).

4.2 Southern Mesopotamia and Western Syria

Links between Mesopotamia and Western Syria are few and a satisfactory relative chronology cannot be constructed on this basis alone. Tell Sheikh Hassan has pottery types of the Middle Uruk period, and Habuba Kabira and other sites have Late Uruk pottery. This relationship of this material to the south is controversial.

In Anatolia, Late Reserved Slip Ware, i.e. EB I, follows directly after an Uruk phase equivalent to Habuba Kabira. In western Syria the situation is not so clear.

I know of no link between Mesopotamia and western Syria in EB II, apart from occasional ED II seals which are not themselves stratified, and red-banded jars which can occur as early as EB II (Tarsus) but which are not attested as early as ED II in Mesopotamia. Sherds of this kind of jar are found at Abu Salabikh in ED IIIA contexts (Moon 1987, 71). In the west, they continue as late as a phase contemporary with Palace G at Ebla (Schwartz and Weiss 1992, 237), but apparently not later (see below).

ED III art work is known from Palace G at Ebla, and in Hama J6 (Ingholt 1940 pl. XIV: 1). In glyptic, the court style at Ebla has some similarities to the ED IIIB style. The Ebla tablets are generally of ED III / Early Akkadian type, but nothing unquestionably Akkadian was found there. Archi (1987, 135) considers a date as late as the time of Naram-Sin impossible.

The only stratified Akkadian objects from western Syria are the seal-impression and an Akkadian sculpture from the Burned Building in Selenkahiya III (Van Loon 1979, 107-8, fig. 18, 21). This level is contemporary with Ebla Palace G (Matthiae 1980, 102; 1982, 116). A relief from Halawa, dated to a time equivalent to Ebla IIB2, may also belong to the Akkadian period (Orthmann 1985, 470-1).

Syrian Bottles of the later, alabastron form have traditionally been viewed as a criterion for the Ur III period (cf. Mellink 1965, 111, table p. 126, Tarsus EB IIIB). I shall discuss them in more detail elsewhere as the examples from Mesopotamia are either not convincing or badly stratified.

109 Beyer 1985, 171, 184; Anbar 1987; Teissier 1994, 59-60.

A two-handled Anatolian tankard is depicted on the stele from Nasiriya in southern Iraq which is believed to date to the middle of the Akkadian period¹¹⁰. Similar material exists at Kültepe, level 12 (T. Özgüç 1986, 41). This level may be generally contemporary with Palace G at Ebla (see below).

It is conventional to date the later phase of the Syrian civilisation (Amuq J, Ebla IIB2, Sweyhat, Late Selenkahiya and Hadidi) to the Ur III period, but there is no evidence for this. The idea was originally derived from Mallowan's chronology at Tell Brak (Braidwood and Braidwood 1960, 523) and seemed to be confirmed by the "Late Akkadian" date of the (Amuq I) Palace G at Ebla, and by the Sweyhat Weight. Sollberger said that the weight could be dated on palaeographical grounds to the later third millennium. Later this became "Ur III" (Holland 1976, 51, Wäfler 1979, 793) and it is cited as such by Schwartz and Weiss to support the dating of this phase to that time (1992, 240). Actually, there is no palaeographical reason to date this weight precisely¹¹¹. But now that Palace G has been redated to the early Akkadian period and the Weight has been discredited, there seems to be no reason to date the phase later than late Akkadian. There is no material of Ur III type from western Syria, except for a few seals from Byblos.

4.3 Western and Eastern Syria

4.3.1 Ninevite V

No direct link can be made between ED I and western Syria. It has, however, been suggested that there are links between Ninevite V and the Anatolian sequence. Four-lugged jars have feet in Painted Ninevite V and do not have them in Incised Ninevite V. The undecorated footed and lugged jars from Arslantepe VIB2 (Palmieri 1981, fig. 9: 2,3; Conti 1993, 363) may therefore be contemporary with Early Ninevite V. Arslantepe VIB1 lies between this time and VIA which is probably contemporary with Habuba Kabira South. A similar argument can be advanced for Hassek Hüyük Bauphase 3¹¹². Since Hassek Bauphase 4 is later than the Uruk level at Hassek (which is probably contemporary with Habuba Kabira), this evidence is consistent with a gap between the end of Uruk and the beginning of Ninevite V. Therefore Conti's Period 1B (Hassek Bauphase 3, Arslantepe VIB2) may be contemporary with Painted Ninevite V.

The next link comes in the Chagar Bazar graves, where what may be Karababa and Elaziğ Painted wares are found in association with Ninevite V pots (Conti 1993, 385). Unfortunately the eastern pots are not very precisely datable. More useful are Graves G67 and G68, which contain good "cyma-recta" bowls¹¹³. Roaf and Killick (1987, 216 n. 76) say that most of the incised Ninevite V pots from these graves are relatively early, but one excised jar (Mallowan 1936, fig. 19:1 (G68)) is later. This suggests that the "cyma-recta" bowls, which are found in EB II and late EB I in the west, may be contemporary with a middle phase in the Ninevite V sequence.

4.3.2 Metallic ware and red-banded jars

The arrival of Metallic Ware in the west at the beginning of Conti's Period 2 may be correlated with the beginning of Metallic Ware in the east in Leilan IIId. Metallic Ware is not associated with Late Reserved Slip Ware in Anatolia but it does associate with Period 2 wares such as Karababa and Elaziğ Painted wares (Conti 1993, 383-5). Metallic Ware exists also in Tarsus EB II and Kültepe 15, including red-banded jars whose earliest occurrence in eastern Syria is the Ishtar Temple at Mari, niveau d, which as shown above (p. 47) is unlikely to date later than ED II¹¹⁴. Tarsus EB II includes some imported caliciform ware (Braidwood and Braidwood 1960, 518) and should thus overlap the beginning of Amuq I. Another early attestation of Metallic Ware is probably the top level at Halawa B, where there are also EB II cyma-recta bowls (Lüth 1981, 47, Taf. 56)¹¹⁵. It therefore seems likely that although Metallic Ware is mainly contemporary with EB III / Amuq I, it began already in late EB II and with it the red-banded jars.

Red-banded jars exist at Selenkahiya (Van Loon 1979, 110: Phase II) and Hama J6 (Fugmann 1958, fig. 64: 3F218), thus coming down to a time contemporary with Ebla Palace G. There is no evidence that this ware existed after this time (see further Kühne 1976, 67-70). They are not typical of the main level at Tell Hadidi which is later (Dornemann 1979, 122). Schwartz (1988, 66) says that Metallic Ware exists in Amuq J contexts at Selenkahiya.

110 Mellink 1963; Amiet 1975, 194, 196, Abb. 103; Amiet 1976, 27-8, fig. 19.

111 Dr. A. Westenholz tells me, on the basis of the recent photograph of the Weight in Rouault and Masetti-Rouault 1993, no. 287, that the palaeography supports, if anything, an Old Akkadian date; but that damage to the object may imply a period of use before it was deposited.

112 Palmieri 1981, fig. 9: 2,3,5; Conti 1993, 363, 379, 381.

113 Schwartz 1985, 60; Mallowan 1936, figs. 9: 3, 10, 10: 16, 17.

114 Mellink 1989, 322-3; T. Özgüç 1986, 36-8.

115 Cf. an EB III surface grave at Halawa B, Lüth 1989b, 169, which could be later than the top building level. This evidence for the date of the top of Halawa B in late EB II is insecure but important, as there are seal impressions which may be associated.

Since at Brak stoneware is missing from the upper "Taya VII" layers (Oates and Oates 1994, 168), Amuq J may end before this time.

4.3.3 Smeared-wash ware

This pottery is typical of Amuq I and J in the west (Braidwood and Braidwood 1960, 520-521). Kilns in which it was made have been found at Lidar Hüyük (Hauptmann 1983, 96). Although absent from Palace G at Ebla, this is apparently not chronologically significant and may reflect the contexts in which it was used (Mazzoni 1985, 9). It occurs occasionally in the east, as at Chuera, Brak and Tell Jidleh (J. Oates 1985, 143, Kühne 1976, 95f.). An important recent discovery has been at Melebiya, Chantier B, which is generally contemporary with the "ED destruction" at Brak¹¹⁶. Lebeau regards it as a good marker for the Akkadian period, but it could well go somewhat earlier in the west (cf. Thissen 1989, 197). It does not, however, seem to correlate with the earlier phase of stoneware in early Chuera and contemporary sites, and this is confirmed by the deep sounding at Harraṇ where it begins later than metallic ware (Prag 1970, 78-9; Thissen 1989, 199). Late attestations of this ware in the west include Ebla IIB2 and Tarsus EB III. It probably continued until the end of the western Syrian civilisation.

4.3.4 Syrian Bottles

The term "Syrian Bottle" is used for a number of different pot forms in the third millennium, including an early third millennium form which was exported to Egypt (Mellink 1962, 222). Here we are concerned with the ring-burnished later third millennium type, and especially the later form which is an alabastron with a distinctive double rim (Kühne 1976, 63-6, Abb. 65, Taf. 42). In making comparisons it is important to restrict ourselves to examples which conform exactly to this specification as there are several pot types which are fairly similar but which have quite different distributions, such as the Middle Bronze Age form described by Emre (1992). Mesopotamian examples are unconvincing¹¹⁷ or badly stratified, in the case of the Kish bottle¹¹⁸. This bottle came from the upper levels of the Early Houses Stratum in the Y sounding (Watelin and Langdon 1934, 16, Moorey 1978, 102). Gibson says that this level was ED II with ED III intrusions (1972, 84), but one could not exclude the possibility of even later contamination.

The Syrian Bottle is especially interesting to us because a complete one was found on the floor of the SS building at Brak (Oates and Oates 1991, pl. 30e). This context cannot be earlier than Early Akkadian.

There is no certain evidence that the type existed earlier than this time, though there are several indications that it was current at the end of the Early Dynastic period or the beginning of the Akkadian period. There is no reason to use this type as a diagnostic criterion for the Late Akkadian or any later period. Examples from Chuera, in the later material, and from Melebiya, Chantier B, should both be approximately contemporary with the "ED III destruction" at Tell Brak (Kühne 1976, Abb. 65, Lebeau 1986, pl. IV: 4). Both of these pots are lacking their rims but they do look like good examples of the type. Rims which lack bodies have been found at Kültepe, level 13, which is thought to date to ED III on account of Akkadian parallels in the next level 12. That level produced a rimless Syrian Bottle (T. Özgüç 1986, 34-6). Material from Halawa comes from Grave H64 which is early in the sequence there. Later Halawa material is contemporary with the Bi'a cemetery which is probably Akkadian¹¹⁹.

It seems likely that the Syrian Bottle continued at least until the end of the Akkadian period. At Kurban Hüyük it is found in good contexts on floors in Level III with an assemblage suggesting initial MB (Marfoe 1986, 59). One was found in a grave at Habuba Kabira together with a vertical-rim bowl which, as discussed above, is primarily found in Amuq J but may slightly overlap with Amuq I. There are examples from the cemetery at Tell Bi'a which produced an Akkadian cylinder seal (Spanos and Strommenger 1993, 578, pl. 105:2).

At Tarsus a perfect example is dated to middle EB III; late EB III examples are thought to be local imitations (Mellink 1989, 326). Although Mellink says that they continue into the Middle Bronze Age, the published MB bottles (Goldman 1956, fig. 294: 913-917) lack the distinctive double rim. The date of Tarsus EB III is difficult to fix precisely. Tarsus EB II contained red-banded jars and Amuq I ware (Kühne 1976, 114) so Tarsus EB III should start later than the beginning of Amuq I. A date in the middle of EB III should therefore be late Amuq I at the earliest and perhaps later. This is confirmed by the *depa*, which suggest that the beginning of Tarsus EB III may be contemporary with Palace G at Ebla, which is assigned here to later Amuq I (see below).

116 Lebeau 1986, pl. IV:5, pp. 13-15, rejecting Kühne's sub-classification; Lebeau 1989, pl. 12:4.

117 Cf. Kühne 1976, 64 and from the Diyala region, Delougaz 1952, pl. 113h (Tell Asmar Houses IVa-Va) which does not have the distinctive double rim.

118 Watelin and Langdon 1934, pl. XVI:3, Kühne 1976, 55 Taf. 42:3. The bottle is now in the Ashmolean Museum (1930.202) and the inappropriate reconstruction shown in Kühne's photo has now been removed.

119 Orthmann 1981, 58-9, Taf. 59: 28-30; Spanos and Strommenger 1993, 576 n. 14, 577.

To conclude, Syrian Bottles of this type in the west probably belong to the whole of Amuq J, and also to the later part of Amuq I. There is no evidence for them outside these limits. In the east they exist in the middle phase of the stoneware culture, at sites contemporary with "Brak ED III", but not earlier. Some sites have them in a phase of the Akkadian period which is later than this.

4.3.5 Depas amphikypellon

This is a kind of two-handled vessel which apparently originated in western Anatolia (Mellink 1989, 325). Two main types are distinguished, corresponding to Troy II and Troy III-IV respectively. Most of the Tarsus EB III *depa* are of the later (Troy III-IV) type which also occurs at Tell Tainat in Amuq J and at Kültepe level 11. The earlier type exists at the beginning of Tarsus EB III, at Kültepe level 12, and on the floor of the Old Palace at Tell Bi'a¹²⁰. This palace is approximately contemporary with Palace G at Ebla (Strommenger 1994). Another *depa* was found at Selenkahiya, but its form is uncanonical (Mellink 1989, 327).

This evidence provides useful confirmation for the relative chronology of Tarsus, Kültepe and Tell Bi'a, and confirms the dating of the Syrian bottles proposed above.

5. Palestine

Palestine is not treated in detail in this book, as the glyptic has been discussed by Ben-Tor 1978. A relative chronology for the phases of the Early Bronze Age in Palestine is however needed. In the third millennium Palestine's relations were often stronger with Egypt than with Syria, and the relative priority of cultural exchanges with Syria is often disputed¹²¹. Similar problems apply to the chronology of Byblos. It can sometimes make sense to relate Palestine first to Egypt, and then to Syria via direct links between Egypt and Syria.

Throughout this chronology I have taken the Uruk phenomenon as a basis for the sequence. This is not satisfactory west of the Euphrates because of the shortage of Uruk material. Excavations at Tell Fara'in/Buto in Egypt have recently found Uruk IV material in a later Naqada II context. This linkage involves not only material of Mesopotamian type in Egypt, but also Egyptian sherds in the Late Uruk of Habuba Kabira (Moorey 1990), and so contemporaneity may be assumed. Early Naqada II imports are known in the early EB I of Palestine (Stager 1992, 31) so this period of contact with Uruk culture is probably later than the beginning of Palestinian EB I. In Egypt, king Narmer is separated from the Naqada II period by the Naqada III period (see Spencer 1993). Therefore Narmer is not likely to be much earlier than the beginning of the phases in the east which follow the Uruk period after a gap, that is ED I and the Ninevite V period. According to the scheme proposed here, this is middle Amuq G. Ben-Tor (1978, 71) suggests that the Eneolithic seal-impressions on the Byblos jar handles cannot date later than this time. Similar material from Jawa is assigned to EB IA by Helms (1991, 16), a phase considered by Stager (1992, 30, 31) to be contemporary with early Naqada II.

At Arad, stratum IV at the end of Palestinian EB I is contemporary with Narmer, and stratum III contains Abydos Ware which first appears in Egypt in the tomb of the First Dynasty king Djer (Ben-Tor 1992a, 108). This is the EB II of Palestine which produced wares found in Amuq G contexts in Syria (Stager 1992, 38). Since we have already seen that Narmer is not likely to date before middle Amuq G, this is probably equivalent to the end of Amuq G¹²².

A Tarsus EB II reserve-slip pitcher was found in an early Fourth Dynasty tomb at Giza (Mellink 1965, 111). Tarsus EB II probably overlaps Amuq I (see above, p. 50), but this type is early in the phase (Goldman 1956, 60) and is therefore likely to belong to Amuq H (Mellink 1989, 322; Braidwood and Braidwood 1960, 518). Therefore the Second and Third dynasties are likely to be contemporary with a period running from final Amuq G at the earliest to late Amuq H at the latest. In principle, the Cilician pitcher could have been an antique when it was deposited, but this is not likely because of the next synchronism.

120 T. Özgüç 1986; Spanos and Strommenger 1993, 573-4, 577-8.

121 E.g. caliciform wares, which are typical of EB III and IV (Amuq I-J) in Syria, only occur in Palestine in EB IV (P. Beck, pers. comm.). This is strange, since present evidence suggests that the caliciform culture was more vigorous in Syria in EB III (Amuq I). Cf. Mazzoni 1985, 12f.

122 An important discovery has recently been made by Dr Eli Yannai of a footed jar in a Palestinian EB IB burial context from 'Ein Assawir. This jar is similar to jars from Arslantepe VIB2 and elsewhere which may be dated to late Amuq G and probably also to the Early Ninevite V period (Conti 1993, 363, 381, Period 1B). Since final Amuq G (Palestinian EB II) is placed later by Conti (Period 1C), this find confirms this chronology. I am much obliged to Dr Yannai for permission to mention this find, and to Dr Pirhiya Beck for her help with it.

The end of Palestinian EB III is marked in Stager's opinion (1992, 39) by the last imports of Metallic Ware to Egypt, in a context dated to Pepi II of the Sixth Dynasty¹²³. This date may also apply to the Ebla Palace G assemblage which belongs to the end of Amuq I. The latest Egyptian inscription from Palace G names Pepi I, but an Egyptian stone vessel has its best parallel in the time of Pepi II (Schwartz and Weiss 1992, 239). If we mark the end of Amuq I in the early Sixth Dynasty, then the whole of the Fifth and most of the Fourth Dynasties have to be placed in the interval between this time and the time of the Tarsus pitcher.

Each of these correspondences could be adjusted up or down, but probably not by much. The most notable results are that Palestinian EB II probably overlaps Syrian EB I (Amuq G), and Palestinian EB III probably includes much of Syrian EB II (Amuq H).

6. The theory of Weiss and Courty

This theory has been advanced in Weiss et al. 1993, which concentrates on the evidence for ancient climate change at Tell Leilan, and in Weiss and Courty 1993, which takes a more cultural perspective. It is suggested that as a result of climate change there was a widespread abandonment of sites at the end of the Akkadian period in Syria, and that the people went *en masse* to the Ur III state, which first greatly increased in population and then collapsed. This is an attractive theory in that it explains a number of patterns, and though it probably cannot be proven from the evidence at our disposal, I do not criticise it for that reason¹²⁴. Most of the suggestions made in this book are no more provable.

Publication in *Science*, with the core of the discussion devoted to soil science, gives the theory an appearance of authority which should be treated with caution. Science does not give answers: it provides evidence. The evidence here is interesting: the occupational hiatus at Tell Leilan between the Early and the Middle Bronze Age is marked by a layer of wind-blown deposits in every part of the excavation (Weiss et al. 1993, 1000-1001). But why should this be the cause of the hiatus? Could not the hiatus have caused drying at the site? Human occupation will have two effects on a site: walls are built which create shelter, and liquids are constantly transported onto the site and there dispersed. The excavation of material in building activities will also spread water to the surface. An abandoned site, on the other hand, is an arid hill which will not grow vegetation to the same degree as the adjacent plain. Rainwater quickly runs off it and its height exposes it to the wind.

The archaeological evidence is treated as follows (Weiss et al. 1993, 999): "At approximately 2200 BC the Akkadian-dominated period IIb occupations of Tell Leilan and Tell Brak were suddenly abandoned. The subsequent remnant occupation of Tell Brak was limited to one-half the area formerly occupied. At Tell Leilan, an occupational hiatus ... has been documented at each sounding in the site. Similar abandonments are evident at almost all excavated sites of this period across the Habur and Assyrian Plains, including the excavated sites of Chagar Bazar, Arbit, Germayir, Mohammed Diyab, Tell B'deri, Kashkashuk, Abu Hgeira I, Melebiya, Tell Taya, and Tepe Gawra. Surface surveys ... have failed to identify any ceramic assemblages for this period ... To the west, ... Tell Chuera and Jidle were abandoned ...". These sites have to be carefully examined.

First, there is a difference between an *abandonment* and a *destruction* (Mazzoni 1985, 12). For Tell Brak, for example, D. Oates 1987, 178-9 is cited (Weiss et al. 1993, 1003 n. 37). He says "it appears there was a break in occupation, possibly at the end of Naram-Sin's reign", but this relates to the earliest Akkadian building (FS level 5). Above the Akkadian sequence of three levels (FS 3-5) Oates says "we have two major building phases ... the later of which ... must be ascribed at the latest to the first half of the 20th. century BC". So Brak shows a destruction, which is *not* at the end of the Agade occupation of the site, and which does *not* represent the abandonment of the site. There is a large reduction in the size of the site, but this occurs at the end of level 1 at about 2000 BC, not 200 years earlier as Weiss clearly implies. The same situation probably applies to Tell Taya and Tepe Gawra, to judge from the distribution of Taya VII ware¹²⁵.

Second, a "sudden abandonment" implies contemporaneity. The proposed date is at the end of the Akkadian period, but I have already shown that Brak and Taya have evidence for a diminution of settlement significantly later. Some of the other sites discussed were probably abandoned considerably earlier. I discussed the evidence for the abandonment of Tell Chuera above (p. 43) and concluded that it was likely to be after the beginning of the Akkadian

123 Egyptian objects are not found in post-EB III contexts in Palestine (Richard 1980, 111).

124 Weiss and Courty (1994) have defended themselves against some philosophical criticisms by Glassner (1994) and Cleuziou (1994). I am grateful to Jesper Eidem for these references.

125 The Taya sequence is summarised in Reade 1973, 168-170, where a hiatus is described in Level V. A date of c. 2050-1850 for V is implied by the suggestions for the dates of levels VI and IV, but this depends on an early dating for Level VII which, on the Brak evidence, now seems unlikely.

period, but that no convincing evidence for a late Akkadian occupation had yet been published. The same applies to Tell Melebiya (Lebeau 1989, 1) and probably also Tell Bderi and Tell Abu Hujeira¹²⁶.

Third, a "hiatus" implies the use of negative evidence, and negative evidence should only be used where a site has been extensively examined, such as at Leilan, Brak and Chuera. Citation of Mallowan's small soundings at Germayir, Arbit and Jidle, none of which was excavated for more than a few days, is misleading.

Fourth, the absence of a ceramic assemblage tells us more about archaeologists than about archaeology. Weiss and Courty say (1993, 141, 142 n. 33): "No archaeological project has ever published a building of this period, nor a stratified assemblage of ceramics from an exterior living surface", except for the Red Libn Building at Brak (FS level 1). This would only be an argument if they were proposing that *no* sites were occupied at this time; yet on their own admission, Brak was and Taya probably was also. The Hurrian rulers of Urkish must have lived somewhere (unless it is proposed that they were nomads) and therefore some site such as Tell Mozan must also have remained in occupation. The people who lived in these places must have had a material culture, and if we cannot recognise it in site survey, this does not mean that it does not exist. In the south, where substantial published archaeological assemblages do exist, Adams found it impossible to distinguish the Ur III period from the Isin-Larsa period in surface survey (1981, 171). He did not claim that there was no occupation in the Ur III period.

Weiss and Courty (1993, 144) refer to a "sudden doubling of sedentary occupation in the south" in the Ur III period, which they explain by a massive migration of northern people from the new desert of Syria. This is justified by reference to Adams 1981, 143, which does indeed suggest that the maximum population of the south before the Hellenistic period was attained at that time. But Adams also says "the totals in table 13 to some extent conflate sequential developments during the Ur III - Isin-Larsa period, thereby considerably adding to the figures that are shown", because of the problem with diagnostic indicators mentioned above. The "doubling" described by Weiss and Courty thus refers to a comparison between an "Akkadian period", perhaps less than 200 years long¹²⁷, and an Ur III - Isin-Larsa period of 330 years.

I agree with Weiss that there is evidence for a considerable reduction in the area of settlement in the later third millennium, and I would be willing to accept that the majority of sites in Syria were not occupied in the Ur III period¹²⁸. But this reduction did not take place at once, but rather in three identifiable phases, corresponding roughly to the end of the early Akkadian, late Akkadian, and Ur III periods respectively. I see no proof that it was caused by climatic change, though this is possible; political disturbances might well account for it.

126 The upper level at Bderi was related by the excavators to Brak "ED III"; at Abu Hujeira, level 6 is equivalent to Leilan IIIId (stoneware + Ninevite V) and level 2 is the top EB level (Martin and Wartke 1993-4, 204-5). Four levels of occupation might well represent a similar period of occupation to Tell Chuera.

127 If, as I suspect from Adams 1981, 170-1 in the light of Gibson's researches, the "Akkadian pottery" does not cover the Early Akkadian period, the length of time covered is still further reduced. Adams 1981, 142 regards the Akkadian types as "particularly doubtful".

128 For example, I see no reason to believe that the EB IV / Amuq J phase in the west continued after the end of the Akkadian period, though it is usually assigned to the Ur III period in the literature.

III. THE GLYPHTIC OF SYRIA IN THE EARLY BRONZE AGE

A THE URUK TRADITION

1. Uruk cylinders in Syria

The Middle Uruk period¹ of Susa, levels 21-20, yielded a cylinder with fish, and there is comparable material nearby from Tepe Sharafabad². At this time there is a heavy coarse style with rows of animals made up from blobs³, very like the cylinder seal found in a Middle Uruk level at Brak, site TW, underneath the 'Habuba Kabira' level (Oates and Oates 1993, 176). This 'massive style' of the very earliest cylinders continued to develop until the time of Susa 17A (Sürenhagen 1986, 10).

A spherical bulla with multiple seal-impressions from Tepe Farukhabad in Iran (Wright 1981, 156, fig. 75d, pl. 16e) is dated to the Middle Uruk period⁴. The Farukhabad bulla includes an impression with intertwined lines like the snakes or lions of classic Uruk IV cylinders, but a similar impression from Syria on a Sheikh Hassan sealed bulla (Boese 1986-7, fig. 39) may have been made by a stamp. This object is therefore not clear evidence for the existence of the Uruk IV style before the "Susa 18" phase. In that phase the Sheikh Hassan cylinder seal impressions are, however, of standard Uruk IV or Habuba Kabira type (Boese 1986-7, figs. 37-39). The impressions are on hollow clay balls of a kind known in Susa 18, Habuba Kabira and in Eanna V⁵, though they disappeared in phase 17B at Susa⁶. No list of fine quality "Uruk IV" seal-impressions from Syria is given here.

The first scholars of Uruk glyptic were faced with misleading evidence which caused them to assign a numerous class of coarsely engraved seals to the Jemdet Nasr (Uruk III) period (Frankfort 1939, 35-6). The appearance of this style at Habuba Kabira and Jebel Aruda, and at other sites, has however demonstrated that it began earlier⁷. The type is not found in the "Susa 18" levels described above which predate Habuba Kabira⁸. The excavations at Habuba Kabira, Jebel Aruda and Susa Acr. 17 have also shown that the main types of geometric design were all in use at that time⁹, as well as the figurative schematic seals ("squatting ladies" and animal rows).

In the south the seals and seal-impressions of Jemdet Nasr show that both the schematic and the "Uruk IV" styles continued into the Uruk III/Jemdet Nasr period (R. Matthews 1992, 1993). It is unlikely that this was the case with the "Uruk IV" glyptic in the north, but the evidence for continuity in the Aleppo Series (see below) makes it possible that schematic "Jemdet Nasr" glyptic continued into EB I. Nonetheless this is improbable, because the figurative "Jemdet Nasr" of the west is identical to the glyptic of Habuba Kabira. It is becoming increasingly clear that Uruk glyptic can only be understood in the context of the whole Uruk administrative system. It is unlikely that a style which originated in this context could have survived the collapse of the system without showing any stylistic changes, and indeed we see in the Aleppo Series what changes did occur. The situation was different in the south where there may have been more political continuity. The geometric designs, on the contrary, whose effect relies more on simple principles of composition than on the exact imitation of figurative motives, continued and became one of the two main components (with fired steatite seals) of the glyptic of the Ninevite V area.

To summarise, a massively modelled style is attested in the earliest Middle Uruk cylinders, probably together with designs with repeating elements such as fish (discussed further below). In the "Susa 18" phase this massive style was joined by the more delicate "Uruk IV" designs, and both of these types continued into the "Habuba Kabira" phase which followed it. At that time so-called "Jemdet Nasr" schematic Uruk designs appeared, and also all of the main types of geometric cylinder. So during the Late Uruk all three types of cylinder co-existed: 'massive' designs, fine seals of Uruk IV style – both of these continuing from Middle Uruk – and the new types of schematic seal. Although "Uruk IV" and "Jemdet Nasr" glyptic survived in the Uruk III period of the south, they both probably disappeared in the west in EB I, though not without leaving some stylistic influence. The Uruk geometric design types, on the contrary, flourished until the middle of the third millennium in the north, especially in the Ninevite V area.

1 Cf. pp. 37-38.

2 Amiet 1980, 200; Wright 1980, 279 fig. 6.

3 Amiet 1980, nos. 297, 299, 301; cf. Porada et al. 1992, 99.

4 I.e. Susa 21-20: Wright 1981, 172.

5 Amiet 1980, 199-200, Sürenhagen 1986, 19.

6 Dittmann 1986, 345; Amiet 1980, 200.

7 Sürenhagen 1986, 23; Porada et al. 1992, 102; R. Matthews 1992, 19.

8 Dittmann 1986, 335 and n. 18.

9 See the lozenge, diamond, lattice, chevron, triangle and arcade patterns, discussed below.

1.1 Simple figurative Uruk seals and "native glyptic"

1.1.1 Fish

Jebel Aruda 1, seal.

Nineveh: Collon Yale k (BM I pl. 13d), seal, context insecure.

Nuzi pl. 41D, seal, early context.

1.1.2 Birds

Jebel Aruda 30, impression.

Korucutepe D: Van Loon 1978, pl. 135C, 138I, seal (EB III context).

Baghouz: Du Mesnil du Buisson 1948, 61, pl. 52, terracotta seal, MB IIA cemetery.

1.1.3 "Native glyptic"

Habuba Kabira: Aleppo II 297, seal.

Nuzi pl. 41C, seal, context perhaps archaic.

Nuzi pl. 41F, seal, context perhaps archaic.

Tell Karrana 3: Stein 1993a, pl. 45:3, copper seal, with animal (context Uruk- Ninevite V transitional).

Nineveh: Collon and Reade 1983, no. 4, impression (out of context).

Mersin: Garstang 1953, fig. 150:17, sherd with cylinder and stamp impressions (MB context but cf. fig. 54:11, possibly from a much earlier context).

1.1.4 Scorpions

Habuba Kabira South: Strommenger 1980, 55, Abb. 43, lower = Sørenhagen 1986, fig. 11b, seal.

Apamea: FI 14 (Collon and Zaqzouq 1972 pl. XI:1), seal (Amuq I context).

Bought in Birecik: Ash 705, seal.

Bought in Birecik: Ash 706, seal.

Bought in north Syria: Damascus 98 (Brussels II p. 135-6, 1495), seal.

Tell Fisna: Numoto 1988b, fig. 39:484, impression, (early Ninevite V).

Taşkun Mevkii: Helms 1973, fig. 10: 70/3, seal (EB I context).

Nineveh: Collon Yale 68, impression (out of context).

Mulla Matar: Sørenhagen 1990, Abb. 28a, seal (final Ninevite V).

Chuera: Moortgat-Correns 1988a, 22 Abb. 9: impression from the Kleiner Antentempel West-Erweiterung (redeposited in ED III).

Birds, fish and especially scorpions are common minor figures on cylinder seals of the third millennium. Here I am concerned only with designs where they constitute the main subject of the scene. Simple designs featuring rows of these creatures are attested from the very earliest times. CDAFI 1 fig. 43:10 is a simple seal made of black stone with two rows of fish, reported from Susa Acropole 21¹⁰ in the Middle Uruk period, which has a good claim to be the earliest cylinder seal ever found. Jebel Aruda 1 is a seal with rows of fish in the Late Uruk period, and Pittmann (1994, 93) mentions another from that time or immediately after from Tall-i Ghazir. A seal from Nineveh (Collon Yale k) was found 16 feet below datum and may belong to the Ninevite V period. The hoard of seals found in an undisturbed context at Nuzi included mostly drilled style stamp seals of the kind usually called "Jemdet Nasr", but which could be much older (Starr 1939, 521, pl. 40). The fish seal Nuzi pl. 41D is, in the light of the other fish designs just mentioned, credible at any date back to Middle Uruk, and the seal with beetles (?), Nuzi pl. 41F, could go with it. The other two cylinder seals from this hoard, Nuzi pl. 41 C, E, however, do not resemble what we know of Late Uruk glyptic, so either the deposit is rather later, or it represents a native assemblage of material not produced under the restrictions of Uruk cultural control.

A Late Uruk impression from Jebel Aruda (no. 30) has rows of birds, and we find birds again in a seal from Korucutepe from a later level dated by Conti to a time equivalent to early Amuq I (Conti 1993, 378). The lack of parallels makes this seal very hard to date¹¹. Designs with birds were revived in the Ur III period in Mesopotamia,

¹⁰ Considered doubtful by Dittmann 1986, 333, n. 5. Cf. Amiet 1980, 200 n. 46.

¹¹ The best parallel is Diyala 843 from an ED II context; but the Shara Temple was full of antique seals.

but these are not found in Syria, except perhaps for a seal from an early MBA context (Tubb 1980, 62-5) at Baghouz (Du Mesnil du Buisson 1948, pl. 52).

The six designs listed under "native glyptic", from Habuba Kabira, Nuzi¹², Tell Karrana 3, Nineveh and Mersin are from sites around the fringes of the Uruk world. In each case we see a simple rectilinear design with no obvious links to Uruk glyptic. The figures are carefully fitted together, sometimes by turning a figure through a right angle, and the feet are stressed with short lateral strokes or deep wedges in a manner reminiscent of Gable seals. I do not believe that these seals represent a coherent style: they are rather the effect of the same process in each case, of the application of the older stamp tradition to the cylinder¹³.

A seal from Habuba Kabira South has two rows of scorpions. A seal from Apamea (FI 14), though found in a much later context, must surely belong to this time, as do two seals acquired at Birecik (Ash 705-6) because of the association of the scorpions with squatting ladies and pots of Late Uruk type. Damascus 98 is another seal of this kind bought in Syria. Scorpion designs were also used in the early Ninevite V period, as demonstrated by an impression from Tell Fisna. Material from Susa 15 (CDAFI 1, fig. 59:13) and Taşkun Mevkii¹⁴ may be contemporary, and so may an impression from Nineveh (Collon Yale 68). A seal from Mulla Matar and an impression from Tell Chuera do not have the simple composition of the archaic scorpion design and may belong rather to the later Ninevite V period. The Chuera seal may have been a stamp-cylinder.

So seals with rows of fish, birds and scorpions were made in the Uruk period from Iran to western Syria and continued into early Ninevite V. Many of them are not clearly related to the main Uruk traditions, and may represent independent applications of stamp seal style onto cylinders, but some of the scorpion designs are clearly connected to the schematic Uruk seals which show domestic or industrial scenes. Designs featuring scorpions with less simple compositions may have continued until the end of the Ninevite V period.

1.2 Schematic Uruk seals: "Jemdet Nasr glyptic"

1.2.1 "Spiders" and "insect"

Jebel Aruda 31 (Late Uruk).

Tell Mohammed Arab: Roaf 1984, pl. XIIIj (Transitional Uruk / EB I).

1.2.2 Uruk glyptic, drilled or cut style, with no special attachments (*not including Habuba Kabira or Jebel Aruda*)

Gawra VII: Gawra I 42, broken seal, drilled design, unclear (late ED context).

Tell Afis: Imprime p. 227, pl. 47:1, seal, squatting ladies.

Amuq fig. 381:7, seal, design of humans, animals and pots (out of context).

Ash 704, seal, bought near Membij, pots.

Tell Karrana 3: Stein 1993a, pl. 45:4, impression, with animal in cut style (context Uruk-Ninevite V transitional).

Leilan IIId: Parayre 1987-8, no. 5, cut style¹⁵ animal? (final Ninevite V context).

Leilan IIId: Parayre 1988, no. 4, cut style animal? (final Ninevite V context).

Tarsus II fig. 397:13 (Imprime B131), sherd with impression of cut style animals, MB context.

Assur: VR 22, seal, animals in cut style.

Rimah: Parker 1975, no. 3, animals in cut style, late context.

These are seals of "Jemdet Nasr" type which do not have the special attachments of the Aleppo Series seals which are discussed below. It may be doubted whether the "spider" and "insect" patterns are a geometric form or a representation of some domestic object, such as a piece of weaving equipment¹⁶. Le Brun 1978 fig. 9:1 is an example of a "spider" from Susa 17B, and there is another from Jebel Aruda (no. 31)¹⁷. The "insect" pattern in Le Brun 1978 fig. 8:4 (Susa 17B) is also typical of the early period: it is common in the earliest levels at Khafaje (Diyala 1, 4-6, 11, 14, 16, 19, 20).

12 Possibly stratified very early, see above.

13 The stamp tradition in question is a linear style; the classic Uruk style, by contrast, developed out of a drilled stamp seal style. These cylinders do not have to be any later than the earliest cylinders of the main tradition. Cf. Mazzoni 1984, 27-8.

14 Helms 1973, fig. 10: 70/3. The drawing looks more like an animal than a scorpion to me, but the text (p. 116) describes scorpions and this may be correct. For the date, the reserved slip ware is compared to Amuq G by the excavators.

15 Or perhaps Brocade Style: Parayre 1987-8, 129.

16 Collon 1987, 16 regards it as certainly a spider - which is an obvious symbol of spinning and weaving.

17 Aleppo II 296 is said to come from Habuba Kabira.

Such patterns continue down to the end of the Jemdet Nasr period (cf. Khafaje Sin III: Diyala 44-50). They are common in Sin IV at the beginning of ED I (Diyala 64, 144, 145, 180-184, 211; cf. Gubba 29); but thereafter they are rare and the known cases are probably all survivals or redeposited¹⁸.

It is noticeable how few ordinary seals of Uruk type have been found outside the "colonies". The list given here includes only the more schematic Uruk styles (mainly drilled style squatting ladies and cut style animals), and does not include modelled Uruk glyptic such as is known in impressions from Tell Sheikh Hassan, Habuba Kabira and Jebel Aruda. There are examples from Tell Afis and the Amuq, but these might be exceptions¹⁹ and the bulk of the Uruk glyptic in Syria west of the Euphrates may have been made in accordance with the special traits of the Aleppo Series. The seals with designs of animals in a cut style represent a penumbra of simple Uruk-like glyptic all over the Uruk area. It may be doubted how far this kind of glyptic continued to be made in the Early Bronze Age, though it may have had some currency in the Ninevite V area.

2. Aleppo Series: Uruk period

I define the Aleppo Series by the presence of special attachments on the seal stones, a handle or a loop-bore. I begin with Uruk figurative glyptic which has special attachments, and also with two rare groups which belong to the Uruk period in western Syria, in order to establish the nature of the Uruk figurative inheritance in north-west Syria. I then proceed to list all of the other seals with special attachments, to show the range of geometric and other figurative styles which are represented. The figurative styles are then listed in their own right, before in the next section I turn back to the Uruk period to study the geometric patterns.

2.1 Quadruple spiral

Jebel Aruda 35 (Late Uruk).

Ash 725, bought Aleppo, perhaps from Deir ez-Zor.

Munbaqa: Boese 1991, 114 Abb. 34, sherd (EB IV).

Gawra I 69, seal from Gawra V.

Aleppo, Poche coll.: Moortgat-Correns 1968, 246 Abb. 4, Taf. A6.

Jebel Aruda 35 demonstrates that the quadruple spiral existed already in Late Uruk cylinders, where it may possibly have arisen from geometric experiments, like those which can be observed in related material²⁰. Some of the main series of seals with quadruple spirals may be later, running into EB I and perhaps even later still. The Munbaqa sherd comes from an EB IV context, and though perhaps redeposited, comes from an area where settlement began only in EB III (Boese 1991, 114). Its closest parallels, however, are with the sherds from Halawa (Halawa II Abb. 69: 5, 7) which come from the earlier third millennium tell Halawa B. There is metallic ware from the top levels at this site (see p. 39), so it probably runs down to the end of EB II. A date in late EB II may therefore be the most likely for both the Halawa sherds and the one from Munbaqa. This is a somewhat slender conclusion on which to rest an important conclusion, that the tradition of well-composed geometric impressions in the west crystallised in EB II (before flourishing in EB III), but it seems probable to me at present, despite the absence of adequate excavated evidence for the EB II sites (see p. 100 n. 199). Although the secondary scenes on these seals sometimes resemble Uruk period forms, they also sometimes do not²¹ and it could be proposed that the group continued into EB I when Late Uruk forms were adapted inaccurately in the seals of the Aleppo Series. Against this idea, the Aleppo series is characterised above all by the use of unusual attachments for the cylinders, and the seals of this kind do not include one with a quadruple spiral.

A striking feature of the seals with the quadruple spiral, most of which have no provenance, is the frequent appearance of the griffin. The wings are shown as a separate member above the body in a manner similar to the archaic griffins of Susiana and Egypt²². Repeated hints suggest that the quadruple spirals and griffins group was made and used only in North Syria. Apart from the provenances near Aleppo listed above, a seal with the quadruple

18 E.g. Diyala 817 and 870 from Tell Agrab, a site which contained many antique seals; and even in ED III: Diyala 249, 365.

19 Cf. in pottery, bevelled rim bowls do occur as far west as Hama, but they are not common anywhere west of the Euphrates, cf. Algaze 1993, 86, 91-3, Schwartz and Weiss 1992, 233.

20 Amiet 1963, 67 n. 32, pl. V:5 (GMA 1644) has noted a rosette made up from four Uruk vases in a seal bought in Beirut and in BM I pl. 4j; Amiet 1980, 103 has shown how the "spider" motive can resemble two of these jars.

21 E.g. GMA 593, 1648, pl. 85bis E; Mazzoni 1992a, Tav. XLVIII:6.

22 Teissier 1987, esp. 31 and n. 2.

spiral, GMA pl. 85bis E, has also an animal stylised in a similar way to a seal from the Amuq (fig. 382:1), and a seal from Carchemish, GMA pl. 85bis G, has a figure which resembles this kind of griffin²³. This group is therefore rare evidence for the participation of Syria in the links which connected Susa and Egypt at the time of the Late Uruk "colonies" (see Moorey 1990). Accordingly, we find some evidence for connections to the east along the route which follows the foot of the mountains which later, and perhaps even at this time, was marked by the "fired steatite" seals. The seal from Tepe Gawra was found in a much later context, and is perhaps not stylistically similar to the others²⁴; much more convincing is the sherd from Susa GMA 593. Given that there is much excavated glyptic from Susa, and little from the Aleppo district, it is much more likely that the Susa sherd was imported from Syria than that the Syrian material came from Susiana (Amiet 1980, 199, 202).

To summarise, the main series of seals with the quadruple spiral probably belongs to the Aleppo area in the time of the Late Uruk "colonies" and may have participated in the links between Susiana and Egypt at that time. Some cases seem to be stylistically independent of the range of Uruk forms, which may suggest either that the group was made in a local tradition, outside whatever pressures maintained the consistency of style of the Uruk seals, or else that the type survived locally after the end of the Uruk period. In either case, it appears as the earliest phase of the independent tradition of the Aleppo district which was so important in EB I. A few cases, such as a seal from Gawra and an impression from Brak, are so far removed in both time and style that they are probably independent revivals of the motive²⁵, which had a very wide distribution in metalwork (see Maxwell-Hyslop 1989). The Munbaqa sherd might belong with them, or alternatively to the very end of an EB I-II continuation of the early tradition.

2.2 Uruk glyptic with special attachments

Amuq H: Amuq fig. 297:5, "byre-shaped" seal, squatting ladies.

Amuq fig. 382:3, "byre-shaped" seal, animals and ladder-pattern.

Ugarit: Amiet 1992, no. 1: loop-bored stamp cylinder, animals and ladder-pattern (erosion of archaic stratum).

Marcopoli 298, loop-bored seal, squatting ladies.

Marcopoli 300, seal with handle, squatting ladies.

Marcopoli 301, "byre-shaped", "spider".

Marcopoli 302, seal with handle, drilled design.

Ash 703, loop-bored seal, pots (bought Syria).

Ash 707, loop-bored seal, squatting ladies.

Ash 716A, probably "byre-shaped" seal, animals and ladder-pattern (Poche Collection, Aleppo).

Aulock 251, loop-bored seal, animals and ladder-pattern.

Louvre A115 (GMA 315), "byre-shaped" seal, squatting ladies.

The Aleppo Series is defined by the coincidence of geographical, chronological and technical features, namely the presence of unusual methods of attachment (loop-boring²⁶ or a handle, often "byre-shaped"²⁷), in northern Syria, during a period from the Late Uruk at least until EB I. It is probable that all of the seals listed above which come from later contexts were made during this time, but one cannot prove that the type did not persist into EB II. Seals of this kind are prominent in collections acquired in or near Aleppo, such as the Marcopoli and Poche Collections and many of the seals in the Ashmolean Museum.

The list above gives seals whose designs are indistinguishable from the Late Uruk glyptic of Habuba Kabira and Jebel Aruda, but which nonetheless have the special methods of attachment. All of the "byre-shaped" seals belong to this group, but lug handles and loop-boring had already originated by this time. Amiet has noted (1980, 199) that domestic scenes and animals can appear together on the same seal, unlike in the drilled Late Uruk glyptic of Mesopotamia, and this may be due to a difference in the administrative system within which these seals were sealed²⁸. Although the provenances are as we might expect, from the Amuq region to Ugarit, these seals do not give us a date for the type, but the stylistic identity just noted must imply contemporaneity with Habuba Kabira, and perhaps a little later: it seems unlikely that such perfect stylistic conformity could have survived for long after the end of the Uruk system.

23 Moortgat-Correns 1968, 245-7, no. 10, Taf A:3-9, citing Louvre A12, Brussels I p. 91:406a, Ash 725; Taf A: 4, 6, 9 were bought in Aleppo. See also Yale 218, Marcopoli 314, Maxwell-Hyslop 1989, pl. 45:1 (=GMA 1649?), Mazzoni 1992a, Tav. XLVIII: 4-10.

24 Cf. Yale 220; and what must surely be later, Brak 208. Ben-Tor IIC-11 may not be related.

25 Cf. at Selenkahiya, Van Loon 1968, 31 (listed p. 95 below). For the new sherd from Jerablus Tahtani, cf. p. 170.

26 In which two holes are drilled obliquely into the top of a seal so as to form a V-shaped perforation for suspension.

27 That is with a conical top which is pierced across; no symbolic meaning should be inferred.

28 E.g. in Sumer animal herding was organised separately from the wool industry; in Syria they were organised together.

It is noticeable that there are no examples from Habuba Kabira or any of the Late Uruk sites. There are three possible explanations for this. First, there is no formal publication of the Habuba seals. It is possible that special attachments exist but are not noted in the interim publications which are presently available (this is most likely for the loop-bore). Second, the distinction might be chronological. The type might have been made in the Jemdet Nasr period after the end of the "colonies". This is unlikely because that period seems to have been marked by the end of the close links with Mesopotamia which had formerly existed, and we would not therefore expect the seal style to remain unchanged. Third, the distinction may be geographical, i.e. the native people among whom the Uruk "colonies" were set made exact imitations of Uruk seals, no doubt for use in trade networks which included the "colonies". One could propose that these natives only knew the Uruk seals from impressions, and that is why they changed the shape of the seals, but this is not likely. Not only do we possess very few impressions of seals of this drilled style, but we would not expect the similarity in the designs to be so exact unless they were actually made by the same craftsmen. Nor is there any sign of a pre-existing native tradition of cylinders which used these shapes. But if the seals were made by the craftsmen belonging to the Uruk people, why did they include these differences? One possible explanation is that they were marked thus for the use of outsiders, who were expected to participate fully in the Uruk system, but not to enjoy other privileges which may have been given to the holders of seals in the Uruk system.

2.3 Mannered style

Habuba Kabira: GMA 1633 (Damascus 2), seal.

Arsilantepe VIA: FI 11, impression, tête-bêche design (Late Uruk context).

Amuq H: Amuq fig. 297:6, seal (EB II).

Nineveh: Collon and Reade 1983, no. 5, impression (out of context).

Uruk type glyptic was not, however, the only source of inspiration available to the seal-cutters of Syria at this time. It does seem certain that the Uruk culture introduced the cylinder seal, but there was a long and sophisticated tradition of stamp seal manufacture which was still fully in use at the time of the Uruk intervention, as is demonstrated by the hoard of seal impressions from Arsilantepe, almost all of which were made by stamps²⁹. In the north Syrian area which is of primary interest to us, since nearly all of the figurative and geometric designs of the EB I period can be attached to the technical features of the Aleppo Series, the stamp seal tradition came to its climax with the Gable Seal which must be regarded as one of the prime sources of inspiration for our glyptic³⁰. Teissier (1987) has demonstrated the close links which exist between stamp seals and early Levantine cylinders, especially in the glyptic of Byblos, in features such as tête-bêche, animal protomes, the griffin, and exuberance in the rendering of tails, feet and hands. Her thesis is that these are features held in common in Elam and predynastic Egypt, which also occur in Syria and represent evidence for early links along a route through Syria by which early Egyptian civilisation was inspired by Elam. While not denying that this interpretation is the most appropriate one for some motives, such as the griffin, and accepting that the early stamp seals of Iran were one of the major sources of inspiration for the whole Near Eastern stamp seal tradition, I would not see such a strong Elamite influence on Syrian glyptic in the Late Uruk period. Design features on stamp seals may have originated in Elam a millennium before, but by this time they were thoroughly at home in the western stamp seal tradition which could alone have provided most of the inspiration which was not obtained from the Late Uruk cylinders.

The glyptic of Byblos forms the most coherent expression of this native Syrian tradition in cylinders. Its most striking features include the strong outline and careful interlocking of the forms, often achieved through the tête-bêche principle and sometimes elaborated with animal protomes, but with only sparing use of filling motives, the use of hatched bands and of hatched detail within the figures (e.g. Byblos I pl. 126: 4995, 5182). The magnificent plaque Gawra I 29 shows all of these traits except the animal protomes and internal hatched detail, and we can see extravagant use of protomes in a Gable from the Amuq (Von Wickede 1990, no. 580)³¹. Internal hatching is typical of many stamp seals, especially from Iran³². Mazzoni's collection of material shows two main ways of drawing the figures in Gables (cf. Keel-Leu 1991, 28): fluid animals, often with finely hatched linear elements around them (Mazzoni 1980, nos. 20, 22-24) and rectilinear animals with straight legs and little detail (nos. 27, 28). The deep sharp angular engraving (Buchanan-Moorey 1984, 12) is striking in Gables, and so is the very limited range of subjects, mainly horned animals with few human figures but some lions. Both features are true also of Byblos.

29 Amiet 1973, 224, cf. Collon 1987, 14.

30 See Keel-Leu 1991, 27-31.

31 Cf. from Brak, but in quite a different style, Iraq IX pl. 16:9.

32 Caldwell 1976, 233; Buchanan-Moorey 1984, 6.

Both the Gables and the Byblos seals represent a glyptic with a very limited repertory of subjects, but a bold handsome style of composition and detailing which stressed decoration and pattern rather than making symbolic distinctions. They are both highlights of an ancient local tradition which probably owed something to Iran in the distant past, but which was autonomous for much of the fourth millennium with its roots in the Ubaid period.

The "mannered style"³³ may represent the application of concepts which originated in stamp seals onto cylinders. These seals do not have special attachments. In all cases here we see a scene of animals in a mobile posture with fine curving hatched elements around them, comparable to the finer type of Gable seal described above. The Habuba seal (GMA 1633) is the least similar among them, as it has ladder-patterns around the figures, unlike the horns and tails of the others, but the posture of the animals is distinctive and unlike what we would normally expect in Uruk glyptic. The Arslantepe seal (FI 11) is especially significant in that it shows the tête-bêche layout at such an early date and in a context dominated by stamp seals. This layout is much better adapted to stamp seals, with their round or rectangular surface, than to cylinders with their long strips which invite narrative³⁴. An impression from Tell Razuk in the Hamrin (Gibson 1981, pl. 49:1) comes from an ED II context³⁵ and may also belong to this group³⁶. It is similar to the impression from Nineveh. These two examples may illustrate parallel developments in the east to the seals from western provenances (Habuba, Amuq, Arslantepe), in which the bodies of the animals are more fluid. In both areas the arrival of the cylinder seal may have inspired existing cutters of stamp seals to create a new style on cylinders, not in the rather crude way of the previous seals in "native style", but with more appreciation of the possibilities of the cylindrical field.

3. Aleppo Series: EB I

The material listed above shows that glyptic manufacture in the Aleppo district in the Late Uruk period was intimately associated both with the nearby Uruk "colonies", and with the wider trading links of the time, extending probably from Susa to Egypt. In EB I these trading links were to some extent preserved, but the Uruk political system which may have previously regulated glyptic style disappeared. The glyptic production of the Aleppo Series thereupon became degraded and eclectic. I have suggested that two groups of cylinders which do not have special attachments, the "native seals" and the "mannered style", probably belong to the Uruk period, even though they are rather different from normal Late Uruk glyptic. It is therefore not certain that the seals with special attachments which do not have Uruk style designs should be dated later, in EB I. I make this presumption as a convenience in classification which fits my picture of the ideological impact of the Uruk intrusion, but more evidence would be needed before one could be certain that it is true. In the Uruk period, I am supposing that all seals were made to be used in contexts where adhesion either to the Uruk style, or to the local stamp seal tradition, or to both, was necessary. After the end of the Uruk intrusion, stamp seals disappeared and the use of cylinders became universal. Cultural loyalties were no longer divided and the exact style of a seal may have become less important than the fact that a seal was being used. In such circumstances, the Uruk style as such would disappear and crude imitations of all the styles which had previously been valid would be made. Stylistic distinctions which had been important in the highly structured Uruk system were forgotten in the less complex world which came after it.

The first necessity is to demonstrate the chronological significance of special attachments such as handles or loop-boring as a secure marker for the period running from Late Uruk to EB I. Seals with these attachments which are not listed above are as follows:

3.1 Pierced lug handles

3.1.1 "JN" designs

Mackay 1931, pl. 73: 17, 31 (=GMA 360) from Jemdet Nasr itself: simple animals.

Ash 729, bought Syrian coast: design worn and hard to understand. It might be geometric, or stylised animals, or the "spider" design.

33 "Mannered": affected with mannerism, a marked peculiarity of style (*Chambers Everyday Paperback Dictionary* 1975, 440).

34 Cf. at Arslantepe, Von Wickede 1990, nos. 382-391.

35 Level IV: Gibson 1981, 29, cf. Gibson 1987, 502.

36 Cf. also Guimet 1.

3.1.2 Chevrons, diamonds and circled dots

Marcopoli 310, Aleppo coll.: chevrons.

Amuq fig. 381:4, no context: chevron pattern; base: circled dots.

Amuq fig. 381:3, no context: diamond pattern with circled dots; base: lattice.

Yale 226, no prov.: diamonds with circled dots; circled dots on base.

Marcopoli 313, Aleppo coll.: diamonds and circled dots; circled dots on base.

Sendschirli V Taf. 39e: diamond pattern with circled dots; base: cross.

Mackay 1931, pl. 73: 16, 30 from Jemdet Nasr; chevrons.

3.1.3 Lattice and ladder patterns

Amuq fig. 254:1 (Amuq G): lattice.

Yale 230, no prov.: lattice.

Tell Brak, here 402, Ur III context: ladder pattern at a diagonal.

Ash 742, bought in Egypt: irregular lattice; base: star.

Marcopoli 311, Aleppo coll.: hatched diagonally and horizontally.

3.1.4 Other designs

Collon 1982a, no. 1, Alalakh, late context: stylised animal or scorpion and swirl, terracotta.

Ash 741³⁷, said to come from Amorgos in the Aegean: concentric circles, not made with drill; two diagonal lines suggesting spiral; chevrons; base: cross, chevrons in quadrants.

GMA 706, de Clercq coll., no prov.: design in arcs, perhaps related to the ED I "Brocade Style"; scorpion and animal head on base.

3.1.5 Byblos

Byblos I pl. CXXVI: 4995, 5182, 6595. Ivory seals with designs featuring herringbone bands, lions and animal protomes; probably EB II (see p. 92).

3.2 Integral theriomorphic handles

No provenance: GMA pl. 21bis H: chevrons.

Aulock 126³⁸, bt. Aleppo: circled dots; irregular geometric design on base.

Chagar Bazar, here 429, no context: irregular lattice design containing a lozenge.

Ash 33, shell seal with handle in the form of a pig, no prov.; "JN" animals.

Hassek Hüyük: Behm-Blanke 1984, Taf. 12:4. Copper seal with a handle in the form of an ibex, from an EB I pithos grave. The design is in diamonds, like Amuq fig. 381:3, etc, but without the circled dots.

No provenance: Moortgat-Correns 1985, Taf. 61. Copper seal with feline handle, design of tête-bêche animals.

The first three seals listed above have bossed handles which could be regarded as crude representations of animals, or not.

3.3 Loop-bored seals

3.3.1 "JN" designs

Ash 703, bt. Syria: "JN" pots.

Ash 707, T. Basher?: "JN" squatting ladies.

Aulock 251, no prov.: "JN" animals and ladder motif.

Marcopoli 298, Aleppo coll.: "JN" squatting ladies.

Amiet 1992, no. 1, Ugarit, "erosion of pre- and proto-historic levels"; "JN" animals and ladders; crude star on base.

37 = FI 588, p. 109 12viii.

38 = Amiet 1963, 64 fig. 4.

3.3.2 Chevrons, diamonds and circled dots

Hauptmann 1974, pl. 80:1, Norşuntepe EB I: chevrons.
 Aulock 125, bt. Aleppo: diamond pattern with circled dots; circled dots on base.
 Amuq fig. 254:3, Amuq G: diamond pattern and circled dots.
 Amuq fig. 254:2, Amuq G: circled dots.
 Amuq fig. 381:5, mixed context: circled dots, also on base.
 Ash 719, T. Basher?: animals and circled dots.
 Ash 719A, Aleppo coll.: animals and circled dots, geometric(?) design on base.

3.3.3 Figurative designs, perhaps derived from "JN" style

Amuq fig. 382:1 (GMA 1643), late context: animals and frame-pattern, not "JN" in style but perhaps derived from the "JN" "animals and temple" scene, as GMA 385-395, etc.
 Amuq fig. 382:4 (GMA 1642), purchased: man and animals, Hassek style.
 Ash 721, bt. Aleppo: human and animals, stylisation similar to the EB I Hassek glyptic.
 Collon 1982a, no. 2, Alalakh, late context: animals, perhaps Egyptianising.
 Marcopoli 316, Aleppo coll.: rosette, snake and animals, style cf. Alalakh as previous.

3.3.4 Crude figurative designs

Ash 715, T. Basher?: animals, stylisation not "JN".
 Ash 712, bought near Carchemish: crude animals.
 Amuq fig. 382:2, mixed context: animals.
 Copenhagen 114, Hama, mixed context: man and animals, style not distinctive.
 Nineveh: Al-Gailani Werr 1988, no. 5, terracotta: human and animal, style not distinctive.
 Amuq fig. 254:4, Amuq G: scratchy figurative design.

3.3.5 Other designs

Ash 733, T. Basher?: diamond pattern with excised triangles, perhaps derivative style from fired steatite glyptic.
 Ash 732, bt. Aleppo: design unclear but perhaps comparable to Yale 227 below.
 Yale 227 (Newell 650), no prov.: crude rosette, chevrons and lines, cf. Byblos II pl. CXCI:14541.
 Yale 225, no prov.: design unclear, base has cross and dot in each quadrant.
 Marcopoli 312, Aleppo coll.: horizontal and vertical lines.

3.3.6 Other stamp-cylinders

Ur: there is some evidence for the use of stamp cylinders in ED I impressions from Ur where cylinder rollings are counter-stamped by round stamp impressions. In the absence of original seals of the kind which produced this material one cannot be certain, but it is tempting to think that they may have been using stamp-cylinders: UE III 195, 197, 208, 231, 237, 253, 254, 260, 281, 286, 306, 351, 368, 378, 382, 393, 424, 427, 431 (rosette), 212, 214, 376? (scorpion), 215, 297 (animal), 223 (cross/rosette), 275, 291 (circle in square), 384 (scorpion and animal)³⁹, 426 (face?).

Tell Abu Salabikh: cylinder impressions are counter-stamped with a stamp seal⁴⁰, but the stamp is square and an actual example⁴¹ shows that it was not made by the end of the cylinder. This should date later in the ED period, cf. at Ur, UE III 534, 539 which are also square.

Tell Chuera: a rare northern example comparable to the Ur cases is the impression Moortgat-Correns 1988a, 22 Abb. 9, with a design of scorpions(?) counterstamped with what is probably the round end of the seal with a rosette device.

Almost all of the seals come from a restricted area of north Syria (now mostly in Turkey), from the Amuq and Alalakh to the region of Gaziantep (Zencirli, Tell Basher, etc) and up the Euphrates to Hassek Höyük. Many were

39 The design on the end of 384 may be related to GMA 706 cited above, p. 62.

40 Martin and Matthews 1993, 26-7; Postgate 1980, 91-2, pl. XIc.

41 *Ibid* pl. XIc: lion head.

bought in Aleppo which is near to all of these sites. The Byblos glyptic has a special and distinctive iconography and it probably dates later than the other seals. It should therefore be treated as a separate phenomenon. The Brak glyptic corpus is much larger than from any other EB Syrian site and there are a good few examples which were probably not made locally. The Brak and Chagar Bazar seals with handles are unusual and were therefore probably imported. They could have been made anywhere which experienced the "JN"⁴² or fired steatite styles, though neither is a pure example of either style. Cylinder seals have occasionally been found in EB I sites on the upper Euphrates where there has been much more archaeological activity than in the Aleppo region. They are also probably mostly imports. Not enough is known about EB I south Syria to judge whether the Hama seal is an import or not.

The design styles may be classified as follows: "JN" designs; chevrons; circled dots and diamonds; lattice pattern and similar; other designs possibly related to the "fired steatite" seals; possibly related to ED I Brocade Style; possibly derived from "JN"; related to Hassek glyptic; possibly Egyptianising; swirls, rosettes and loops, not made with a drill; crude figurative; Byblos style.

Apart from the "JN" material, we do not have clear stylistic evidence for the dates of these styles. Nonetheless many indications point to a period immediately subsequent to the Jemdet Nasr period: many seals, especially the ones featuring circled dots, are related to the fired steatite style which flourished in the earliest phase of ED I; one seal is perhaps related to the ED I Brocade Style; some designs look like a degeneration of "JN" style; two seals are related to glyptic from Hassek Hüyük which is stratified in the period immediately following the Uruk/JN period; two seals may be related to glyptic which was made in Egypt after the time of Uruk influence there.

Although most of our material is unstratified and much of it is in bad contexts or from provenances which are obviously much too late (second or first millennium), the stratification also supports an early date for all of this material, except for at Byblos and Abu Salabikh⁴³:

Southern Iraq: material from Ur and Jemdet Nasr dated to the Jemdet Nasr and ED I periods

Amuq G or EB I context: Amuq fig. 254: 1, 2, 3, 4; Behm-Blancke 1984 Taf. 12:4; Hauptmann 1974, pl. 80:1

Redeposited in ED III: Moortgat-Correns 1988a, 22 Abb. 9

Akkadian - Ur III context: Brak 402

There is some ambiguity here, because the relative chronology of the Near East is more satisfactory in the Uruk period than afterwards. Nonetheless a scheme which assigns all of the seals with "Jemdet Nasr" stylistic features to the Uruk and perhaps earliest EB I (contemporary with the Jemdet Nasr period in the south) phases, and all of the other seals with these attachments to the EB I period (except for the EB II Byblos material) fits the evidence reasonably well, allowing for a couple of redeposited cases. I believe that this is secure enough for us to infer a date in EB I or earlier from the presence of special attachments alone, even where no further dating evidence is present. This principle acts as a basic foundation for the reconstruction of early third millennium Syrian glyptic attempted below. Its most serious weakness is that so little stratified glyptic exists from EB II that it is difficult to make any negative statements about what was then being made.

Having established its scope, it is now possible to include other seals which show the same kinds of design, but which lack the special attachments which I have taken as diagnostic of the Aleppo Series. Several types mentioned above, such as geometric scenes and designs with circled dots, have a wider distribution and are further discussed elsewhere.

3.4 Hassek style

Hassek Höyük: Behm-Blancke 1981, Taf. 11:1, terracotta seal (EB I): made by rolling a clay cylinder round a seal so that the design is positive on the cylinder.

Hassek Höyük: Behm-Blancke 1981, Taf. 11:4, sherd (EB I): made with a positive "daughter-seal" like the previous one above.

Hassek Höyük: Behm-Blancke 1981, Taf. 11:2,3, impressions of the same seal on a sherd and on a terracotta strip (EB I).

Hassek Höyük: Behm-Blancke 1981, Taf. 12:1, sherds (EB I).

Amuq fig. 382:4, seal, loop-bored (out of context).

Ash 721, seal, loop-bored, bought Aleppo.

42 I.e. schematic Uruk glyptic of the kind formerly called "Jemdet Nasr".

43 "Byre-shaped" seals are not mentioned here, since their designs alone make their date certain.

The next group may be called the Hassek style, since four of the known cases were found at Hassek Höyük on the Euphrates in southern Turkey. Several of the Hassek seals were impressed on pots of Late Reserved Slip ware, so we cannot doubt that here we are in EB I. Amuq fig. 382:4 is a perfect example of the type, as was noted by Behm-Blancke (1981, pl. 12:2), and we may perhaps add Ash 721⁴⁴, which like the Amuq seal is loop-bored. These two pieces therefore connect the Hassek style with the Aleppo Series, as we would expect from its date and provenance.

There are some points of comparison between the Hassek style and the Mannered style from which it may have developed. The fluid lines, simple composition, and the stressed hands and feet go back to the stamp seal tradition, but the tête-bêche layout is missing here and the human figure is an innovation which may derive directly from misunderstood glyptic derived from the Uruk period. Genuine Uruk glyptic of common style distinguishes between designs featuring humans (GMA 304-310, etc., and "squatting ladies" seals) and designs with rows of animals (Ash 28-43, etc.)⁴⁵. If Amiet (1980, 199) is correct in suggesting that a mixture of humans and animals is a mark of Syrian manufacture, then the Hassek group may be a development both from such seals and from the stamp seal tradition, perhaps via the Mannered style.

3.5 Horizontal figures and Egyptianising

Nineveh: Collon Yale I, terracotta seal, loop-bored (18 feet below datum, probably early Ninevite V).

Kutan: Bachelot 1987, fig. 10 upper, seal (mid Ninevite V).

Alalakh: Collon 1982a, no. 2, loop-bored stamp-cylinder, from dump.

Alalakh: Collon 1982a, no. 3, late context.

Marcopoli 316, seal, loop-bored.

Next comes a group which belongs to this time and which may be connected to the Aleppo series. Two seals from Assyria, one from Nineveh and the other from Kutan, show unusual attachments⁴⁶ and may be dated to the first half of the Ninevite V period. In both, a human figure at right angles to the field is stretched out round the seal, with an animal or geometric forms completing the picture. Collon says (1988, 13-14) that the Nineveh seal is the only one from the early Ninevite V period there which includes a human figure, and this may imply that it, and perhaps also the Kutan seal, are imports. Al-Gailani Werr (1988, nos. 3-5) notes comparisons from Susa, but the loop-boring may rather refer to a western provenance. On the other hand, we do not yet have any seals of this kind from the west, but much of the evidence for the Aleppo Series comes from seals in collections purchased in north Syria, and clay seals of our type tend not to have interested collectors (Al-Gailani Werr 1988, 1). In its horizontality, lack of normal perforation and geometric terminal motive we may perhaps compare a seal from Arad (FI 47) with the Kutan seal. This piece is stratified in Palestinian EB II (i.e. in the scheme used here, final Amuq G), and is therefore contemporary with the Kutan seal.

The small group of Egyptianising seals has been discussed by Ben-Tor (1978, 99-101)⁴⁷. Ben-Tor noted the remarkable lack of communication between Egyptian and Palestinian glyptic in EB I and EB III, both periods of strong cultural interaction between these two countries. The well-known links between predynastic Egypt and Elam, which were apparently mediated through Syria (Teissier 1987), do not touch Palestine, and Ben-Tor suggests that they may have been carried by sea from Byblos. In this case, he points out (1978, 93-4), it may be better to see some of the Egyptianising seals from Palestine as imports from Syria rather than directly from Egypt. This would explain why these seals (with the exception of the Gezer seal, Ben-Tor IIIA-1) show predominantly animals in design superficially similar to North Syrian glyptic, and do not follow the Egyptian interest in hieroglyphs. The hieroglyphs would not interest the Syrians. Against this idea is the fact that however few they may be, there are nonetheless more

⁴⁴ I do not, however, agree with Buchanan (1966, 131) that Copenhagen 112 belongs here. At first glance, the comparison looks sound, as we have in each case quite a similar row of a man and animals, with a scorpion in the upper field. However the Copenhagen seal should really be attached, as Buchanan recognises, to the Syrian Animals style, which belongs to EB III and is therefore a much later development in the tradition of the Hassek glyptic. Although the Hassek seals had not been discovered when Buchanan wrote his book, he nonetheless gave an early date to Ash 721 because of the loop-bore, and should not therefore have made this connection. Stylistically the two designs, Ash 721 and Copenhagen 112, are very similar, and I can see only one detail which is really decisive between them: the shape of the man's head. In the Syrian Animals style and in Copenhagen 112 the head is narrow and wedge-shaped, almost like a bird, whereas in the Hassek glyptic and Ash 721 it is broad and round, often with special features (described by Behm-Blancke 1981, 27, but missing in the Ashmolean seal!). Having made the distinction, we can see others: Syrian Animals style seals are not loop-bored, they have more hatched detail and less fluid lines, and perhaps above all they can show contests which are missing from Mannered and Hassek style glyptic. I have discussed this comparison in detail, not to criticise Buchanan (whose judgements are always well-founded), but to illustrate how very difficult it is to find the proper frame of comparison. Buchanan rightly noted a very strong resemblance between two seals, but the points of comparison are those which persisted for many centuries, while the points of difference which should have informed him were, in these two particular pieces, not strongly marked.

⁴⁵ This distinction does not apply to modelled Uruk glyptic.

⁴⁶ This is not clear in the case of the Kutan seal, but the drawing does show an irregular top.

⁴⁷ Cf. also Lapp 1989, 9-11, fig. 8.

Egyptian seals from Palestine than from Syria⁴⁸; in favour of it are two seals from Alalakh, one of which is loop-bored, which appear to be in Egyptianising style (Collon 1982a, 34-5, nos. 2, 3). Marcopoli 316 is also loop-bored and resembles the first of these Alalakh seals. One might, in conclusion, suggest that an Egyptianising style developed in the orbit of the Aleppo Series which specialised in horizontal animals, characterised either by a long undulating line or by straight horizontal lines with small vertical strokes. In Palestine, Egyptianising seals were derived both from this school and directly from Egypt. The two seals from Assyria and the Arad seal may be further examples of the type.

3.6 Derivative

Amuq fig. 254:4, seal, loop-bored (Amuq G).

Amuq fig. 382:1, seal, loop-bored (out of context).

Amuq fig. 382:2, seal, loop-bored (out of context).

Hama: Copenhagen 114, seal, loop-bored (not in situ).

Ash 712, seal, loop-bored, bought near Carchemish

Ash 713, seal, bought north Syria.

Ash 715, seal, loop-bored, perhaps from Tell Basher.

Habuba Kabira S: Weiss 1985a, 105 no. 20, seal.

Tell Chuera: Chuera 1976, 25 Abb. 9, impression (Kleiner Antentempel West-Erweiterung, fill redeposited in EB III).

These seals should be assigned to the Aleppo Series because they are loop-bored (except for Ash 713, which I include because it was acquired in north Syria and is very similar to Ash 712). They show coarse rows of animals and could well be understood as derivations of Uruk glyptic. Amuq fig. 382:1 could even be a crude copy of an Uruk "animals and temple" design, which was very common in the Diyala region⁴⁹. Such scenes are rare in Syria but there may be some from Jebel Aruda (nos. 36-38). Copenhagen 114 has a more rectilinear style than the others and is strikingly similar to Gable seals of the coarser kind (e.g. Mazzoni 1980, fig. 27-8).

Ash 715 is the most interesting of these seals. The pacing animals and triangular filling shapes occur again in a seal from Habuba Kabira, Weiss 1985a, no. 20, and in an impression from Tell Chuera, found redeposited in an EB III context (Chuera 1976, Abb. 9)⁵⁰. Both of these latter seals have small squatting ladies, in the Chuera case disposed upside down (thus making a link to the tête-bêche designs of the west). The distinctive inverted V-shape of the forelegs should be noted in all three of these designs. The Byblos sherd Imprime B58 may be derived from designs like these.

In summary, the Aleppo Series is defined by the use of special methods of attachment (especially the loop-bore but also handles of various forms) in north Syria between the Late Uruk period and EB I. These attachments were applied to a number of different glyptic styles which had two main sources of inspiration: Uruk glyptic and the native tradition of stamp seals, especially Gable seals. From Uruk glyptic came the concept of the cylinder seal and some elementary compositional ideas, especially the idea of a scene as a row of elements. From the Gable seals came two modes of cutting, one fluid and delicate with fine hatched detail, the other bold, simple and rectilinear, both stressing the extremities of figures by wedges or short lateral lines. The compositional problem in stamp seals was quite different from in cylinders, with symmetrical solutions such as tête-bêche being more appropriate than the narrative tendencies of the cylinder.

At first the two inspirations remained separate. A few cylinders called here "native seals" may represent the direct application of the rectilinear stamp style to cylinders. These seals probably never represented a coherent style as such. Among the Uruk seals a special group, the "byre-shaped seals" seem to have inaugurated the Aleppo Series by applying standard Uruk forms to a new shape of cylinder with a pierced conical top. The evidence suggests that these seals were both made by Uruk craftsmen and not used within the Uruk system, so I suggested that they may have been deliberately made for natives for use in connection with the Uruk trade. In doing so they instilled the idea of the Aleppo-type attachment into North Syria, either in opposition to the normal cylinder used within the Uruk system, or perhaps as a deliberate reference to the local stamp tradition which, however, probably came to its end at this time or shortly after.

48 This may not be significant, because much more excavation has occurred in Palestine.

49 Frankfort 1939, 229; Diyala 852-5, etc.

50 Also GMA 594, from Susa?

Still within the Uruk period, the Mannered style appears as an attempt to marry the finer tradition of Gable seals with Uruk glyptic, so far as we can tell (on very little evidence) without Aleppo-type attachments. The style is very rare, but it may have been an ancestor of the Hassek style in EB I, which did include loop-boring, though not tête-bêche. This style may be a special case of a tendency to make seals loosely derived from the Uruk tradition in North Syria with scenes combining human and animal forms, a combination which in the Uruk glyptic seems to be a speciality of Syria.

The links with Egypt, which existed in Syria more than Palestine in the Late Uruk period, may have resulted in some return influence in the form of a few seals with horizontal designs which show subjects of North Syrian type in an Egyptianising style; and a few more seals may show the further dissemination of this horizontality into Palestine and Assyria.

4. Geometric seals in the Uruk tradition

Geometric designs by their very nature cannot be classified in an objective manner. Most of the types listed here cover several more or less independent phenomena, and seals which should belong together can appear under different headings⁵¹. The study of the individual seals bearing each pattern, which is conducted here, allows one to come to certain general conclusions which in turn lead to an improved classification.

No geometric seals are reported from among the earliest stratified cylinder seals. This does not necessarily mean that they originated later than the figurative seals. Geometric designs had been known since time immemorial on stamp seals. In later times, geometric designs are known mainly in actual seals, and much less often in ancient impressions. Almost all of the earliest cylinder seal designs known are impressions, and the number of original seals of this epoch is too small to be sure that they represent all the styles which were then present. With the larger bodies of information available for the first time in the Late Uruk period, from Habuba Kabira, Jebel Aruda and Susa, we are able for the first time to feel reasonably confident that we possess a representative sample of the patterns which then existed. This section discusses patterns which are attested at one of these sites, in each case with the intention of trying to gauge how much longer they survived. Although the "fired steatite" style is largely geometric and may have originated in the Late Uruk period (CDAFI 1, fig. 44:18), it is discussed separately below.

4.1 Archaic lozenge pattern

Amuq fig. 254:5 (Amuq G).

Thalathat: Fukai 1974, pl. LVIII:19.

Mari Ishtar pl. 67:586 (ED III).

Pulur (Sakyol): Koşay 1976, pl. 110:1.

A special type of seal is first attested in the Jemdet Nasr period (Sin II-III: Diyala 8, 9, 51, 58, 59). Here the lozenge is not the subject of the design as such, as is the case with the larger series of lozenge patterns, but is used as a compositional element in designs with a diamond or other structure. The pattern is common, again, in Sin IV⁵² and continues occasionally in the Diyala sequence down to ED IIIA (Diyala 231, 240, 310, 454, 459, 840). This distribution suggests that the type may have ceased to be made during ED I: the circled dots of 459, moreover, might be thought to fit better into an ED I date than earlier, because of the similarity with the fired steatite seals⁵³.

Patterns of this kind occur occasionally in the west: Amuq fig. 254:5 (Amuq G); Mari Ishtar pl. 67:586⁵⁴ and a seal from Pulur (Sakyol), Koşay 1976, pl. 110:1. The Amuq seals might confirm the idea that the type was still being made in EB I, and this is also shown by a seal from Telul eth-Thalathat (Fukai 1974, pl. LVIII:19).

51 These problems are intrinsic to the situation and not the result of faulty analysis - there is no "correct" system (D. Matthews 1990, 13).

52 Diyala 70, 96-8, 158?, 161, 177, 189, 211; 285 from the houses is contemporary.

53 This raises a problem of definition, cf. below pp. 82-83

54 Aleppo II 323; according to Hammade, also 322.

4.2 The lozenge pattern

4.2.1 Uruk - EB I

Habuba Kabira: Sürenhagen 1986, fig. 11d.

Tell Afis: Weiss 1994, fig. 31.

Hassek Höyük: Behm-Blancke 1981, pl. 12:4.

4.2.2 EB II-III, Ninevite V area

Nineveh: FI 32.

Tell Mulla Matar: Sürenhagen 1990, fig. 29B (later Ninevite V).

Jigan: Ii and Kawamata 1984-5, fig. 23:4 (final Ninevite V).

Mari Ishtar pl. LXVII:1422 (ED III).

Gawra I 48, from Gawra VI (Final Akkadian or later).

4.2.3 EB III-IV, western Syria

Ebla: Impronte A12, sherd.

Ebla: Impronte A38: sherd from Palace G.

Hama: Fugmann 1958, fig. 106: 5A753 (Amuq J).

This pattern, in contrast to the diamond pattern which has straight lines, is defined by its curved forms. The use of space and the division of the seal surface is similar in both patterns; but the diamond pattern is more likely to hatch the field behind the pattern. I distinguish it from the lozenge designs discussed above by its more continuous pattern, in that the lozenges run into each other in a continuous sequence round the seal.

Designs from Habuba Kabira and Susa illustrate the use of this pattern already in the Uruk period⁵⁵. In the Diyala region, however, it begins only in ED I (Sin IV: Diyala 147, 148, 188) and is fairly rare thereafter (Diyala 347, 492, 789, 833: ED II - Early Akkadian). This distribution is too patchy to assess whether the seals are antiques or not. Looking at other sites, there can be no doubt of the popularity of the scene throughout ED I. It is common throughout the sequence at Tell Gubba⁵⁶, and examples from Tell Afis and Hassek may be contemporary⁵⁷.

Four objects suggest that lozenge pattern seals may still have been made at the end of the Ninevite V period. Diyala 298 comes from a late ED II context. On its own, this is not significant since there is so much redeposited material in the Diyala sequence, but we can add a seal from the lowest level of the Ishtar Temple at Mari (Mari Ishtar pl. LXVII:1422), an impression associated with incised Ninevite V pottery from Tell Mulla Matar (Sürenhagen 1990, fig. 29B) and a seal from Grave 14 at Jigan, a final Ninevite V context (see above, p. 44)⁵⁸. This result should be taken seriously, because although the general chronology used to establish the relative dates of these sites is not itself independent of glyptic evidence, seals of this kind were never taken into account as chronological indicators. It may therefore be suggested that the lozenge pattern was made and used throughout the Ninevite V area (cf. also FI 32 from Nineveh itself) both in space and in time, with other examples further to the south-east. It is not found west of the Ninevite V area during this era later than EB I, at which time it may have had some currency there as part of the afterglow of the Uruk intrusion which we have observed also in other classes of seal.

Apart from a couple of cases from the Diyala region and one from Tepe Gawra VI (Gawra I 48), which can all be regarded as survivals, the lozenge pattern is missing from this area in the later third millennium. There are however some examples from Ebla and Hama, all dated to the time of Palace G and later (Impronte A12, A38; Fugmann 1958, fig. 106: 5A753). The Hama seal could be a stray antique, and one of the Ebla sherds might perhaps be understood as a different kind of pattern, but it is difficult to avoid the conclusion that a regular example of this pattern, Impronte A12, was used at Ebla to seal a jar in the later third millennium. Admittedly the sherd does not itself have a good context (p. 69: "Persiano"), but it is well established that this type of object at Ebla belongs to Amuq I-J. This leaves us with two possibilities. Either the sherd is an accident – for example the seal was an old one which was found and re-used, or the design was a chance outcome from among the various curved and swirl patterns which are common on the Ebla sherds; or the lozenge pattern did continue to be made at this time in the

55 Sürenhagen 1986, fig. 11d; CDAFI I fig. 44:20 (Susa 17B).

56 Gubba 113-117, 119, 120, 121 (all sherd impressions), and an actual seal, 123; cf. at Tell Rubeidheh: Ii 1988a, 107 fig. 5.

57 Weiss 1994, fig. 31; Behm-Blancke 1981, pl. 12:4. Although the latter is described as "spätkalkolithische" in the caption, it actually comes from a late EB I context, see *ibid* p. 24.

58 Ii and Kawamata 1984-5, fig. 23:4.

west and the Hama seal is not an antique. I much prefer the former solution, because we do not have any precursors for the design in EB II in the west: as shown above, all the earlier cases from western sites can convincingly be assigned to EB I or earlier. The latter solution however, is certainly possible and may be established if more information is discovered.

To summarise: the lozenge pattern originated in the Late Uruk period and is found throughout the Uruk area. It is doubtful whether at this time it should be counted as separate from the designs which use lozenges more as individual elements. The pattern continued throughout this area into EB I. In EB II, it probably continued to be made and used in the Ninevite V area of eastern Syria and northern Iraq, and perhaps also in the Diyala region. Simpler versions of the pattern became preferred. After the end of the Ninevite V period all known examples can readily be regarded as antiques, except for one sherd impression from Ebla. I prefer to count this as an accident, but it might be evidence for the revival of the pattern in western Syria in EB III-IV.

4.3 The diamond pattern

4.3.1 Uruk period

Habuba Kabira: Sürenhagen 1986, fig. 11c (Late Uruk).

4.3.2 With lozenges, probably redeposited from EB I

Thalathat: Egami 1959, pl. 78:12 (context late Ninevite V?).

4.3.3 EB I, with circled dots

Amuq fig. 254:3 (Amuq G).

Amuq fig. 381:3 (2nd mixed range).

Hasek Höyük: Behm-Blancke 1984, Taf. 12:4 (EB I).

Sendschirli V Taf. 39e.

4.3.4 EB I-II, with horizontal hatching

Hasek (unpublished): Behm-Blancke 1984, 58, said to be like Amiet 1973, fig. 1.

Halawa II pl. 69:6, sherd impression, probably EB II.

Arslantepe: Amiet 1973, fig. 1, unstratified.

4.3.5 EB I-II, with diagonal lines inside the diamond, not cross-hatched.

Geoy Tepe K1: Burton-Brown 1951, pl. 5:34 (early ED I or earlier).

Nineveh: Thompson and Mallowan 1933, pl. LXV:34 = Collon Yale 87 (most of this material is probably early ED I).

Leilan: Parayre 1987-8, no. 1 (ED III context).

4.3.6 EB III-IV Western Syria, with concentric hatching

Han Ibrahim Şah: Impronte B162 (early EB III context).

Ebla: Impronte A36 (Palace G).

Hama: Copenhagen 120 (Hama J5).

Tell Masin: Impronte B118.

Ugarit: Impronte B126 (Ugarit IIIA3).

Tarsus: Impronte B133 (Tarsus "EB III").

The following, found out of context, probably have the same origin:

Impronte A6: Ebla.

Impronte A26: Ebla.

Impronte A37: Ebla.

Collon 1982a, no. 24: Alalakh.

4.3.7 Other designs, probably EB I-II

Kutan: Bachelot 1987, 93 fig. 10, lower (EB I context).

Kutan: Bachelot 1987, 93 fig. 11, top right (EB I context).

Nineveh: Thompson and Mallowan 1933, pl. 65:14 = Collon Yale, seal i (most of this material is EB I, but it could be later).

Hama K3: Copenhagen 117 (probably EB II).

Leilan: Parayre 1988, no. 2 (Leilan III^d = EB II).

Mozan 1, fig. 36: M1 176 (EB III context, design unclear).

Chuera 1960, 10 fig. 6 (late context).

4.3.8 Other designs, probably EB III-IV

Chuera: Orthmann 1986b, 57 fig. 35 (context probably early EB III).

Impronte A40 (Ebla, late context).

4.3.9 Other designs, date unknown

Kara Kuzak: Ash 58 (later third mill. grave).

This is the most common geometric pattern among the early cylinders of the ancient Near East. Several forms exist, but in all cases the basis of the design is a diamond with straight edges, cross-hatched in various ways within and around. Only one case is known which must certainly belong to the Uruk period: the seal from Habuba Kabira, in which the hatched diamonds are separated by an X-sign. The next earliest case may be a seal from Tell Mohammed Arab, phase I (Roaf 1984, pl. XIIIj-k). This seal resembles the archaic "insect" pattern, and it may be that the more organic diamond pattern developed from the "insect" pattern in the same way that the lozenge pattern developed from the individual lozenges of the earliest geometric seals. The "insect" pattern is common in the earliest levels of the Sin Temple at Khafaje, and this may explain the otherwise puzzling absence of the diamond pattern before Sin IV. Several of the earliest seals in this sequence do resemble the diamond pattern in their layout, e.g. Diyala 45-47, 50, 51, though I would classify them otherwise. In Sin IV transitional seals between the "insect" and the diamond suddenly become common⁵⁹. These designs are not strongly hatched, and usually not within the diamond. The pattern remained common later in ED I in the Diyala region⁶⁰. These designs no longer resemble the "insect", though several of them approach the lozenge or other patterns. Hatching is simple and the lines tend to be evenly distributed over the seal surface. Similar material exists further up river at Tell Gubba, where the designs are not found in the earliest level VII⁶¹, and in Susiana in the Proto-Elamite stratum Susa 15A (CDAFI 1 fig. 59:9). These designs show a consistent horizontal hatching inside and outside the diamond. A similar pattern is attested on an ED I sherd from Tell Maddhur⁶².

In Assyria, as we have seen, the earliest example was from Tell Mohammed Arab with a design transitional from the archaic "insect". A seal and a seal-impression from Tell Kutan (Bachelot 1987, 93 fig. 10, lower and fig. 11, top right) were found with painted Ninevite V pottery and should therefore belong to a time contemporary with ED I. The impression is hard to understand but the seal has internal diagonal cross-hatching like the Habuba design. An impression from Nineveh⁶³ has diagonal lines, not cross-hatched, within the diamond. A date early in the Ninevite V period may be suggested, as the bottom of this phase in the deep sounding was just below the depth of the object's provenance; but it did not in fact come from that sounding and late intrusions are reported at this depth. Thompson and Mallowan 1933, pl. LXV:14 may be another example, though it did not come from so deep. It is an actual clay seal (Collon Yale, seal i) and it has a pattern with hatched bands similar to the Arslantepe seal mentioned below. The sherd impression from Geoy Tepe K1 (Burton-Brown 1951, pl. 5:34) shows a simple diamond pattern with diagonal internal hatching, like the Nineveh impression Collon Yale 87. The date of this context is uncertain, but Yakar assigns it to his Karaz I phase, which he assigns to EB I and earlier (1985, 262, 301). The Geoy and Nineveh impressions might therefore be contemporary.

The pattern also exists in EB I in the west. The most important example is the loop-bored seal Amuq fig. 254:3 from Amuq G. The pattern here, not cross-hatched but interspersed with circled dots, is one of the most typical

59 Diyala 143, 145, 146, 149, 165, 169, 175, 185, 186.

60 Diyala 216, 228, 288, 443, 446, 452.

61 Gubba 103-111, no doubt some being impressions of the same seal.

62 Watson 1984, fig. 24:13: almost identical to Diyala 165.

63 Thompson and Mallowan 1933, pl. LXV:34 = Collon Yale 87.

components of the Aleppo Series (see above). Another Amuq G seal, fig. 254:5 is also worth noting. Here the diamond pattern is made up of lozenges in an archaic pattern, with diagonal cross-hatching in a manner reminiscent of the Habuba seal.

The most interesting object of this kind from the west is the copper alloy seal from Hassek with a large theriomorphic handle (Behm-Blancke 1984, Taf. 12:4). The design is a simple diamond pattern without any cross-hatching. Another unpublished seal from Hassek may be similar: it is said to be like a seal from Arslantepe, Amiet 1973, fig. 1, itself unstratified (Behm-Blancke 1984, p. 58). The Arslantepe seal shows a diamond pattern divided horizontally, not unlike the copper seal but more complicated with geometric bands above and below.

A bone seal from Jericho (Ben-Tor IA-2) came from a tomb dated to the later part of the First Dynasty (Ben-Tor p. 42). Although this is EB II in the Palestinian system, it should be contemporary with the later part of EB I in Syria. This demonstrates the very wide distribution of the diamond pattern in EB I.

The distribution of the diamond pattern continued to be wide in the EB II period. The eastern cases could perhaps all be considered survivals⁶⁴. A seal from Telul eth-Thalathat (Egami 1959, pl. 78:12) is indistinctly published, but it may have resembled Diyala 216 or the Jericho seal. Egami 1959, fig. 21 shows incised Ninevite V pottery from the site, so a date in EB II may make sense; but the object is not clearly stratified. More convincing are two designs from Tell Leilan, one from level IIId at the end of the Ninevite V period, and the other from level IIa which follows⁶⁵. The hatching on the first one is not clear; on the second, which no doubt was made at the same time, there is simple diagonal hatching like in Diyala 850.

In the west, two designs indicate the continuance of the diamond pattern in EB II. Copenhagen 117 is a seal from Hama K3. The diamond has a diagonal cross-hatching like the Habuba and Kutana seals. A sherd impression from Halawa B (Halawa II pl. 69:6) probably also belongs to EB II. It has horizontal hatching like the EB I seals in the Hamrin, but there are sherd impressions similar to the ones from Halawa which are not likely to be EB I (see p. 89), so it does not have to be so early. These two designs would not be a convincing testimony for the pattern in EB II on their own, but in the context of examples from other regions we do not have to think of them as antiques. The pattern is not as common as in ED I, but there is a good number of EB II cases.

In EB III the pattern continues to be well distributed. I have already suggested that the Leilan IIa design may be a survival from Leilan IIId, and this may apply also to an impression from glaucis K at Tell Mozan (Mozan I, fig. 36: M1 176), if it not to be understood as a lattice pattern. An impressed chariot body from Tell Chuera, however (Orthmann 1986b, 57 fig. 35), from an early context at Chuera, is most likely to be later than EB II as the other sealed chariots all belong to the later third millennium⁶⁶. On the other hand, it is not clear how the design on the Chuera chariot should be described. Apart from these objects, there are two seals in the Diyala sequence from ED IIIA levels (Diyala 250, 309), both likely to be antiques, and a sherd impression from Han Ibrahim Şah VIII on the upper Euphrates (Impronte B162), a level assigned by Conti to her Phase 2B, i.e. early Amuq I or ED IIIA (Conti 1993, 378, 385). The concentric hatching of the diamonds on this sherd is important, as it relates to the sherd impressions from Ebla and Hama which are known to belong to Amuq I-J. Therefore, like the Chuera chariot, this object is not likely to be much earlier than the level in which it was found. Perhaps the evidence for the use of the diamond pattern in early EB III in Iraq and eastern Syria is not entirely convincing; but given that in the west we know it was used later, and there is some evidence for its existence in EB II there, we may believe it, at least as far east as Tell Chuera, if not in the Khabur or the Diyala.

In late Amuq I, the time of Palace G at Ebla, we find the diamond pattern occurring on sherds at Ebla, at Hama, and in Palestine, usually with a characteristic concentric hatching which we have seen before in the Han Ibrahim Şah sherd⁶⁷. Mazzoni has even suggested that sherd impressions from Ebla and Hama came from the same seal (1984, 28, fig. 9). The type may have continued in Amuq J, though it is possible all cases which are stratified later are redeposited from Amuq I⁶⁸. Other western cases may be much older. Amuq fig. 381:3 obviously goes with the EB I series. Ash 58, a seal from the Kara Kuzak cemetery, has a design combined with lozenges which may well be archaic. The same may be true of a seal from an Akkadian level at Suleimeh⁶⁹, and there seems to be no particular reason why Diyala 319 should not be an antique. It is very similar to Diyala 175 from Sin IV. Diyala 326-327, on the other hand, belong to an ED III geometric type, discussed below.

Further discrimination may be achieved by considering the method of hatching used on the seals. Many of them are not certainly connected to the strata in which they were found, but by looking at the best stratified examples we

64 Diyala 805, 850 with simple diagonal hatching.

65 Parayre 1988, 2, 3 = Parayre 1987-8, no. 1.

66 Halawa: Meyer and Orthmann 1983, p. 104 fig. 4; Tell Bi'a: Strommenger 1981, fig. 5; Sweyhat: Holland 1976, fig. 15:28; Mari Ishtar p. 277, pl. LXXVI:2822; Brak 472.

67 Ebla: Impronte A6, 25, 36 (A36 stratified in IIB1); Hama J5: Copenhagen 120; Palestine: Ben-Tor ID-8 (p. 45: EB III).

68 Cf. Impronte B118, 126, 133; Tell Masin, Ugarit, Tarsus.

69 Suleimeh 2: cf. Diyala 153 from Sin IV.

may hope to make more reliable distinctions. First we have the pattern where the diamond seems to be transitional from the archaic "insect" pattern. This comes from Mohammed Arab 1 and Sin IV in the Diyala region, and it may be specific to Iraq in ED I or earlier.

Next come designs where the diamond and the lozenge seem to be combined. These occur in ED I in the Diyala region⁷⁰, and all of the other cases (Thalathat, Kara Kuzak and Suleimeh) may have been redeposited from that time. The Kara Kuzak seal is a problem, because the cross-hatching on its other diamond may be later (see below), and because simple lozenge patterns of this kind may have continued in the Ninevite V area until the end of EB II. One cannot therefore feel certain that this type of design must be earlier than EB II.

The type where the diamond has diagonal cross-hatching occurred very early, in the seal from Habuba Kabira, but also in the EB I seal from Kutun, in EB II at Hama and in a late third millennium grave at Kara Kuzak. It occurs also in an unstratified sherd from Palestine (Ben-Tor 1D-2). This sherd is important because it is part of a coherent series (Ben-Tor ID - 1-3), which might date to EB II because of a parallel from Halawa (cf. above). So the Kara Kuzak seal could have been redeposited from a time in EB II or earlier, but it could also belong to EB III-IV because of a sherd impression from Ugarit (Impronte B126) which in other respects resembles the EB III-IV material from Ebla and Hama. The pattern may represent a western form.

Seals from Zencirli and the Amuq show a characteristic simple diamond pattern with concentric circles. We need not doubt that this type is restricted to the EB I Aleppo Series. The theriomorphic seal from Hassek probably belongs with them, though it lacks the concentric circles.

A diamond pattern with horizontal hatching is common in the Diyala and Hamrin districts in EB I, and examples from Susa and Hassek (unpublished) are probably contemporary. The earliest case is Diyala 165 (Sin IV), which is almost identical to designs from Tell Madhhur (Watson 1984, fig. 24:13) and Tell Gubba (Gubba 106). The Jericho seal is not quite the same, but may be contemporary. Diyala 228 is similar to it. The Halawa sherd, on the other hand, should not be later than EB II, and comparable sherds from Palestine should perhaps be dated from it⁷¹. The Arslantepe seal (Amiet 1973, fig. 1) might date from any time before EB II on this basis.

The EB I origin of simple diagonal hatching in the diamond, not cross-hatched, seems to be established by the Geoy Tepe impression, and an impression from Nineveh may well be contemporary. Two ED II seals from the Diyala region (Diyala 805, 850) and an example from Leilan IIa (Parayre 1987-8, no. 1) may represent a later continuation of the type.

Finally, concentric hatching is characteristic of the EB III-IV sherd impressions of western Syria. These designs, unlike most of the diamond pattern seals, have several rows of the motive; but both of these features, a pattern in more than one row and the use of concentric hatching do occur occasionally before EB III in the Diyala region. Concentric hatching first appears in Sin IV (Diyala 175 and perhaps 146); later it occurs in ED II in Diyala 850, and again in ED III in Diyala 319. One cannot therefore be secure about the likely date of the unstratified examples Diyala 409-10. Patterns of this general kind with more than one row exist in late ED I in Diyala 228 and perhaps 288. In ED II we have such a design in Diyala 298, though the lines are more curved. The Han Ibrahim Şah sherd impression, which is a perfect example of concentric hatching, though only in one register, comes from a context which is probably equivalent to early EB III. A seal from Nineveh⁷² shows two rows of concentric hatched diamonds between hatched bands. This could belong to ED I, with most of the Nineveh material, or be later. Given this distribution, it is most likely that unstratified examples from the west belong to EB III-IV⁷³. A seal from Chuera, Chuera 1960 fig. 6, is similar to the Alalakh seal just mentioned, but an earlier date is likely (EB I-II) because there is no reason to think this kind of seal was made after the Ninevite V period.

To summarise, the diamond pattern originated in the Late Uruk period, but only became common in EB I when it is found from Susa to western Syria, where a form of it combined with circled dots occurs on the seals with special attachments from the Aleppo region. In Iraq, the design first appeared in forms which seem to be transitional to other designs current then and earlier, the "insect" and the lozenge; but a simplified version, often with horizontal hatching, became more common and may have continued to be made in EB II when the earlier forms had died out. This kind of horizontally hatched diamond pattern also existed in the west, probably in both EB I and EB II, and was probably the progenitor of the later diamond patterns of western Syria.

Seals with diamond patterns were probably made in northern Iraq and eastern Syria throughout the Ninevite V period, though it is impossible to say whether seals with the diamond pattern from the Diyala region in ED II-III contexts had been made at that time. With the exception of an unclear impression on a chariot body from Tell

70 Diyala 153, 169, 216, 443, cf. Gubba 110.

71 I.e. early Palestinian EB III = Amuq H: Ben-Tor ID - 1-3, cf. p. 89.

72 Collon Yale i, Thompson and Mallowan pl. 65:14.

73 Ebla: Impronte A6, 26, 37; Alalakh: Collon 1982a, no. 24 (could be earlier because it is in only one register).

Chuera, however, there is no reason to think that the diamond pattern continued in the north after the end of Ninevite V. The few known cases could all be redeposited. In the west, however, there can be no doubt that the pattern was revived in EB III-IV for use on the sealed pots of Ebla, Hama and other sites. This material is different from most of the other diamond patterns because of the concentric hatching and multiple registers of elements in the designs.

4.4 Lattice pattern

4.4.1 Uruk Period

Jebel Aruda 3.

4.4.2 EB I in North Syria (all with handles; only the first is provenanced)

Amuq fig. 254:1 (Amuq G).

Yale 230.

Ash 742 (bought Egypt).

Marcopoli 311.

Marcopoli 312.

4.4.3 Ninevite V area, date unknown

Chuera 1976, p. 25, unpublished.

Nineveh: Collon Yale 51 = Thompson and Mallowan 1933, pl. 79:4.

4.4.4 Levant, sherds stratified in Amuq I-J

Ebla: Impronte A42 (Palace G).

Hama 3H 466, unpublished.

Hama J4: Impronte B113 (Amuq J).

Sweyhat: Holland 1976, fig. 15:28 (Amuq J).

Byblos: Impronte B53 (Saghieh's phase KIV).

4.4.5 Levant, unstratified, probably Amuq I-J

Byblos: Impronte B51.

Byblos: Impronte B52.

Byblos I pl. 126:3378.

The Lattice Pattern is the last important geometric pattern which is attested in the Late Uruk period (CDAFI 1, fig. 44:19; Jebel Aruda 3)⁷⁴. There is a special difficulty in that it is not certain that all cylindrical objects decorated with cross-hatched oblique lines were in fact seals⁷⁵. Some may have been made as beads or even as elements in composite objects such as maces or furniture. Furthermore, since it was a common pattern also in the Late Bronze Age, it is more difficult to estimate the dates of unstratified examples. Problems of this kind make it impossible to use cases such as Sendschirli V, pl. 39g.

In the east, the lattice is surprisingly uncommon. The impressions of Tell Gubba make it certain that it existed in ED I, but otherwise examples are sporadic⁷⁶. In the west, Amuq fig. 254:1 of the same period (Amuq G) belongs to the Aleppo Series. Yale 230, Ash 742 and Marcopoli 311-312 no doubt go with it. In several of these the lines are more consistent in one direction than in the other, which is not usually true of the lattice pattern elsewhere. No convincing evidence exists for the survival of the pattern in EB II.

The rarity of the lattice in the Ninevite V area is striking. An impression from the Kleiner Antentempel West-Erweiterung at Tell Chuera (Chuera 1976, mentioned p. 25) shows a combined lattice and chevron design (U. Moortgat-Correns, pers. comm.). Another example comes from Nineveh⁷⁷. In the absence of any evidence suggesting a later

⁷⁴ Aleppo II 309 is said to come from Habuba Kabira.

⁷⁵ Cf. Brak 449, 450.

⁷⁶ Gubba 92-94, Diyala 57, 163, 311, 788; Tell Maddhur TM 8, unpub. (M. Roaf, pers. comm.).

⁷⁷ Collon Yale 51 = Thompson and Mallowan 1933 pl. 79:4.

date, these should perhaps both be ascribed to ED I. However the lattice pattern is the least interesting geometric type. It is possible that preliminary reports, which provide the bulk of the material available from Syria, have systematically failed to publish examples. Support for this view can be obtained from Tell Brak, where the lattice pattern is common (438-450). Some of the cases no doubt come originally from the time of the Eye Temple. Others may not be seals. But there remain both a seal and impressions which were found in levels of the Akkadian period⁷⁸. This is not sufficient evidence to judge whether the pattern was in use in the Akkadian period, or whether these objects are redeposited from the Ninevite V levels, for which we do not have adequate information from Brak, or earlier.

This is however the most convincing evidence available to support the survival of the lattice in the east in the later third millennium. The few Diyala seals which have late provenances could all be redeposited. In the west, however, the situation is quite different. Impressions on sherds from Ebla and Hama make it certain that the pattern was then in use⁷⁹. An Amuq J impression on a clay chariot from Tell Sweyhat (Holland 1976, fig. 15:28) goes with them, and so does a sherd from Byblos which can be dated to Saghieh's phase KIV (Impronte B53). Further sherds from Palestine and Byblos which cannot be dated stratigraphically should be counted with this material⁸⁰.

In summary, the lattice pattern originated in the Late Uruk period and was probably widely distributed down to the ED I / EB I period. There is no compelling evidence that it existed anywhere during EB II, though it may have done in Syria. In the late third millennium it revived in the sherd impressions of western Syria.

4.5 Chevrons

4.5.1 Western EB I, seals with handles or loop-bored (*none with secure contexts*)

Norşuntepe: Orthmann 1975, pl. 374a = Hauptmann 1974, pl. 80:1.

Amuq fig. 381:4 (second mixed range).

Marcopoli 310, no provenance.

4.5.2 Ninevite V area, certainly in EB I, perhaps in EB II or even III as well

Leilan IIIa: Parayre 1987-8, no. 2 (early Ninevite V).

Chuera 1974, 58 fig. 21 (Kl. Antentempel West-Erw.).

Chuera 1976, 26 fig. 10 (Kl. Antentempel West-Erw.).

Tell Bderi: Pfälzner 1988, fig. 12 (ED IIIA).

Jigan: Ii and Kawamata 1984-5, fig. 25:38 (Grave 15 = ED IIIA).

4.5.3 Western Syria, EB III-IV, mostly on sherds with vertical chevrons

Ebla: Mazzoni 1993, 406 fig. 7: sherd A49; two levels beneath Palace G.

Ebla: Impronte A2 (Palace G)

Ebla: Impronte A8 (out of context).

Ebla: Impronte A13 (late context).

Tarsus: Impronte B134 ("EB III").

Tarsus: Impronte B135 ("EB III").

Qoueiq survey: Impronte B120 (chevrons horizontal).

Norşuntepe: Hauptmann 1982, p. 64 pl. 26:2, seal (EB III).

4.5.4 Western Syria, Amuq J, actual seals with horizontal chevrons

Tarsus: Tarsus II fig. 393: 20 ("EB III").

Tarsus: Tarsus II fig. 393: 21 ("EB III").

78 Especially 441, from a ritual deposit on an Akkadian floor.

79 Ebla: Impronte A42 (Palace G); Hama: Impronte B113 (Amuq J), 3H 466 (unpub.).

80 Byblos: Impronte B51, B52 and the actual seal Byblos I pl. 126:3378; Palestine: Damascus 4, Ben-Tor IB - 1-3, IF-9.

Chevron patterns occur among the early seals from Khafaje⁸¹ and, according to Hammade, from Habuba Kabira South (Aleppo II 310, 311). Most of these designs show the lines of chevrons pointing sideways, but in Aleppo 310 the axes are vertical. A particularly interesting case is a seal from Jemdet Nasr itself in which the chevron pattern occurs on a seal with a handle (R. Matthews 1992, fig. 10:2). This site has produced material of the Jemdet Nasr period and early ED I.

Seals from Khafaje and sherd impressions from the Hamrin show the popularity of the chevron pattern in ED I⁸². These also include both horizontal and vertical rows of chevrons. In the west, no stratified examples of chevrons are known in EB I⁸³. However, the seals with attached handles or loop-bores are well established in that phase and some of the unstratified cases show chevrons⁸⁴. These designs have horizontal chevrons except for the Amuq case.

The situation in the Ninevite V area is unclear. Parayre 1987-8, no. 2 is stratified in early Ninevite V (Leilan IIIa) and has a vertical chevron pattern similar to Chuera 1974, fig. 21 from the Kleiner Antentempel West-Erweiterung. Chuera 1976, fig. 10 may be similar⁸⁵. Chevron patterns as elements in some of the Nineveh impressions (Collon Yale 49, 54) may be best understood in the context of the fired steatite style. On the other hand two impressions from Tell Bderi belong to the ED IIIA period (Pfälzner 1988, fig. 12-13) and a seal from Jigan comes from Grave 15 which I have suggested should date to the same time (Ii and Kawamata 1984-5, fig. 25:38). To judge from the seals from Abu Hujeira (405, 410) which are published in this book, these "ED IIIA" examples may represent late Ninevite V manufacture which was still in use in the following period. Together with the Brak material published here, it may be suggested that the later Ninevite V chevron pattern was usually horizontal.

In the east, on the other hand, there is no reason to see the few cases stratified after ED I as anything but survivals⁸⁶. They all show the horizontal form of the pattern.

In western Syria the chevron, like the lattice, had a revival in the later third millennium sherd impressions⁸⁷. The earliest case is probably the sherd from Ebla, said to come from below the initial Amuq I level which lies below Palace G (Mazzoni 1993, 412: A49)⁸⁸. These show the vertical form of the pattern, as does a seal from Palestine⁸⁹ and one from Norşuntepe⁹⁰. Two actual seals from Tarsus EB III, however, are more like the material from Brak (Tarsus II fig. 393: 20, 21) with horizontal bands of chevrons, and this is also true of an unstratified bone seal from Megiddo (Ben-Tor IA-1).

Chevron patterns are a common component of more elaborate geometrical designs on western sherd impressions such as the ones illustrated by Ben-Tor 1978, 18-21. This type may run back into EB II (cf. p. 89).

In summary, the chevron pattern probably originated in the Late Uruk period and had a wide distribution in ED I / EB I. There is no compelling reason to think that it lasted after this time in the Diyala region, but it may have persisted in the Ninevite V area. This conclusion relies on the assumption that some pieces from ED IIIA contexts were in fact left over from later Ninevite V, and it is therefore less solidly based than one would like. In the west, the chevron pattern was an important feature of the seals with special attachments in EB I, and then again in the sherd impressions of EB III-IV. Although no seal with a pure chevron pattern can convincingly be ascribed to EB II in the west⁹¹, the pattern may have been transmitted in composite geometric designs used for sealing sherds at that time.

Chevron bands can run either horizontally or vertically and both types seem to have existed at all times. However one may suggest that the vertical form was more popular in the early Ninevite V and Amuq I-J sherd designs, while horizontal chevrons were more common in the Diyala region, in western EB I and perhaps in later Ninevite V seals.

81 Diyala 10 (with lozenges), 52 from Sin II-III.

82 Diyala 154?, 164, 172, 286; Gubba 83-88; Tunca 1987, pl. 106:1 and perhaps 3 (Tell Sabra); Tell Maddhur TM 9, 154?, unpub. (M. Roaf, pers. comm.).

83 Except perhaps Norşuntepe: Orthmann 1975, pl. 374a = Hauptmann 1974, pl. 80:1. I am unable to understand whether "EB I" refers to the style or the context.

84 Amuq fig. 381:4; Marcopoli 310; GMA pl. 21 bis H. The unusual theriomorphic handle on the last object, and the existence of the seal from Jemdet Nasr which has a simple handle but a similar design, mean that it could have been made in southern Mesopotamia where elaborate composite handles were at home.

85 Aleppo II 565 has the same description as this seal, but apparently different dimensions. Byblos II pl. 194:19306 is similar.

86 Diyala 328, 838, 862; Suleimeh 6. It existed at Abu Salabikh in ED IIIB (Martin and Matthews 1993, 34), cf. p. 172.

87 Ebla: Imprime A2 (Palace G) and no doubt A8 and A13 out of context; Tarsus "EB III": Imprime B134, 135; Palestine: Ben-Tor IC - 1,4 (not stratified); Qoueiq survey: Imprime B120. All vertical chevrons except the last.

88 NB the Ebla expedition terms "EB IV" what I am calling EB III. Since their incipient caliciform level EB IVA1 should belong to the beginning of Amuq I, their "EB III" (the date of this sherd) should be even earlier.

89 Lapp 1989, 2, fig. 1 with discussion.

90 Hauptmann 1982, p. 64 pl. 26:2 from Level IX, ascribed by Conti (1993, 376) to Phase 3A, i.e. Amuq J.

91 Unless this is the meaning of the context of Mazzoni 1993, 412: A49.

4.6 Early wave patterns and guilloche

Habuba Kabira: Aleppo II 307.

Nineveh: FI 29-30. Impressions of two different seals on the same bulla.

Jigan: Ii and Kawamata 1984-5, fig. 31:12, impression on bulla (Level II = later Ninevite V).

Norşuntepe XXVI: Hauptmann 1982, pl. 43:7, on sherd (level assigned by Conti (1993, 381) to Period 1C, i.e. final Amuq G).

The wave pattern is not common in our material, except in the fired steatite seals where it was greatly favoured either as an arch or as a continuous wave. This figure is not included here, and in general the distinction between the fired steatite seals and the geometric ones investigated here is according to whether there is cross-hatching between the lines of the wave. The wave is a large arch or continuous sine curve running the whole height of the field. Designs based on this principle fall naturally into three groups, each typical of a different time. Some designs counted here under "swirl patterns" can also resemble the wave pattern, and a sharp distinction probably cannot be sustained between them.

A seal in the Aleppo collection (307) is said to come from Habuba Kabira South, which would demonstrate its existence already in the Uruk period. The design is a simple large continuous wave, with the background hatched. An EB I impression on a sherd from Norşuntepe shows the same design, and there is a comparable seal from Susa⁹². Simple guilloche patterns, which are rare in the Early Bronze Age, follow a similar geometry, and we may therefore agree that a bulla from Nineveh with impressions of two guilloche designs should be assigned to an early date⁹³. A seal from Khafaje Sin IV (Diyala 160) confirms the early date of seals of this kind, while Diyala 170 seems to combine elements of the wave pattern and of the archaic "insect pattern". The impression from Tell Jigan is somewhat later⁹⁴.

A second type of wave pattern may be derived from fired steatite glyptic and is discussed elsewhere (see p. 78). A third type of wave pattern is discussed in the context of Early Dynastic glyptic (see p. 111).

4.7 Triangle patterns

Jebel Aruda: Aleppo II 318, seal.

Leilan IIIa: Parayre 1988, no. 1, impression (early Ninevite V).

Sendschirli V pl. 39d, seal.

Taşkun Mevkii: Helms 1973, fig. 10:71/27, seal (EB I).

Raq'a'i 4: Schwartz and Curvers 1992, fig. 17, impression (later Ninevite V).

Ebla: Mazzoni 1993, pl. 73: A45, sherd.

Byblos I pl. 126:3856, seal.

The triangle pattern is where the whole field is divided by diagonal lines; the field is then often hatched. It has the same relationship to the wave pattern that the diamond pattern has to lozenge designs, but it is the least common of these types of pattern. A seal from Jebel Aruda provides evidence that, like the others, it existed already in the Late Uruk period⁹⁵. Designs from Taşkun Mevkii, perhaps Leilan (if this fragment is not part of another type of design, such as the diamond pattern), and elsewhere⁹⁶ show that it was widely distributed in the ED I or early Ninevite V period. I see no reason why the seal from Zencirli and three from later contexts in the Diyala (827-8) and Hamrin (Suleimeh 1) regions should not all date to the same period. If the Jebel Aruda seal correctly gives us an early origin for the type, then we do not have to see it as a simplification of fired steatite style seals such as Diyala 135, 138, 139, 141, etc.

More difficult to interpret is an impression from Raq'a'i from the later Ninevite V period where the triangles are more self-contained and less just the effect of dividing the field with diagonal lines. The closest parallel is an ED I sherd from Tell Gubba (90) which, like other sherds from Gubba (124-5) could perhaps be interpreted as a kind of chevron pattern, as indeed can another design from Leilan IIIa⁹⁷.

92 CDAFI 1, fig. 59:3: Susa Acr. 14B.

93 Collon and Reade 1983, 37-8, fig. 3 = FI 29, 30. Another possible case from the Late Uruk period is Jebel Aruda 34, but it is not illustrated and the description is unclear (cited comparanda are lattices). Cf. in ED I, Gubba 27, related to archaic designs such as FI 24.

94 A pattern on a sherd from Hama J4 (Fugmann 1958, fig. 85: 3K304) looks from the publication like a late example of the type; but having examined the original I am inclined to think that some kind of combing, rather than a seal-impression, is involved.

95 In the Jemdet Nasr period, cf. Diyala 7.

96 Khafaje Sin IV: Diyala 167, Ahmad al-Hattu: Sürenhagen 1979, 45 Abb. 7, upper.

97 Parayre 1987-8, no 2, included above under chevrons.

A sherd from Ebla, however (Mazzoni 1993, A45) probably represents the use of the triangle pattern in the west in EB III-IV, perhaps there as a variant of the more common diamond pattern. Mazzoni 1993: A47 is similar, with excised triangles, herringbone bands and swirls. It may perhaps be compared to Marcopoli 334 which, in turn, resembles Impronte A17 with its spread-legged female.

The seal from Byblos represents a quite different pattern, where the field is divided into squares, each of which is then divided with diagonal lines. The Byblos seal may come from a context equivalent in date to EB III⁹⁸, but the unreliability of evidence from Byblos means that we should rather prefer to believe two EB I sherd impressions from Palestine (Lapp 1989, 3 fig. 2) for the date of this pattern. An actual seal was found at the same site in an EB III pit (Lapp 1989, 5 fig. 4), but it should probably also be dated from the sherds.

Although all this evidence is too thin and scattered to be conclusive, we do seem to have some reason to think that all of these triangle patterns may have been made no later than the earlier part of ED I/EB I, with the exception of the Raqa'i impression, which should perhaps therefore be described differently, as a variant on the chevron pattern or as a derivative of the fired steatite style.

4.8 Spirals

Tell Karrana 3: Stein 1993a, pl. 45: 5a, impression (trans. early Ninevite V / Uruk).

Tell Mohammed Arab: Roaf 1983, p. 91, pl. 1:74, sherd (Ninevite V).

Hama J4: Impronte B97, sherd (Amuq J).

Tarsus II fig. 398:3, "EB III" impression (probably Amuq J).

Byblos II pl. 195:19307 (Impronte B85), sherd.

The spiral pattern is not easy to distinguish from the swirl pattern, because the regularity and cohesion of design which should act as a criterion cannot be judged in small fragments such as are often available. Therefore some of the pieces counted as swirls (p. 88) should perhaps belong here. The spiral pattern was rare, except in the form of the quadruple spiral, and the examples given above fall into two groups. The Karrana 3 and Mohammed Arab impressions may represent the transmutation of Uruk forms which is typical of early third millennium geometric glyptic. The idea does not seem to have taken hold. The EB IV sherds from Hama, Tarsus and doubtless also Byblos are probably an independent tradition, perhaps derived from the swirl patterns on sherds which, I suggested above, may have comprised a recognisable type rather earlier. A derivation from the quadruple spiral seems to me less likely, but it remains possible.

5. The fired steatite style

The fired steatite⁹⁹ style was primarily at home in Iran and eastern Iraq and no full list is given here (see Pittman 1994). The largest source in the area of interest to us is Nineveh, but as most of the objects have no useful provenance a complete list is not given here (see Collon 1988). I therefore list here material from Syria and the Ninevite V area with selected pieces from Nineveh, in accordance with the conclusions reached below. I use the term "fired steatite" to refer to the design style, not to the material which was commonly used for the seals; this material was sometimes used in other styles, and not all seals of "fired steatite style" were made of it¹⁰⁰.

5.1 Fired steatite and Proto-Elamite

5.1.1 Proto-Elamite

Nineveh: Collon Yale 83, impression, context probably early Ninevite V.

98 It is said to come from a level 24.20-24.40 which should be below the floor of the Hypostyle temple in this area (Saghieh 1983, 43), which belongs to Saghieh's period KIII.

99 I shall call this material "steatite" for convenience even though it is often really chlorite.

100 Discussed below.

5.1.2 Fired steatite: multiple element group

Nineveh: Collon Yale 21, 57, impressions, out of context.
 Nineveh: Collon Yale c, d, e, h, j, seals, probably all out of context.
 Nuzi: Porada 1947, no. 954, impressed on Mitannian tablet.

5.1.3 Fired steatite: hatched group, arcade patterns

Tell Fisna: Numoto 1988b, fig. 39:485, impression, early Ninevite V.
 Tell Mohammed Arab 2: Roaf 1983, pl. 1: 73, sherd, early Ninevite V.
 Tell Durdara: Spanos 1988, Abb. 7:6, impression, middle Ninevite V.
 Kutan: Bachelot 1987, 93 pl. 11: upper left, impression, middle Ninevite V.
 Leilan IIIb: Parayre 1987-8, no. 3 (Parayre 1988, no. 7), impression, middle Ninevite V.
 Nineveh: Collon Yale 8, impression from 17 feet below datum, i.e. at the top of the early Ninevite V level.
 Nineveh: Collon Yale a, seal, out of context.

5.1.4 Fired steatite: hatched group, ladder patterns

Tell Karrana 3: Stein 1993a, pl. XLV:2, impression, stratified later than Late Uruk and earlier than Ninevite V.
 Nineveh: Collon Yale 1 (FI 39), impression, 18 feet below datum (early Ninevite V).
 Tell Durdara: Spanos 1988, Abb. 7:5, impression, middle Ninevite V.
 Kutan: Forest 1987, 87 fig. 10, lower, seal, middle Ninevite V.
 Telul eth-Thalathat, Tell V: Fukai 1974, pl 58: 17, seal, middle Ninevite V.
 Telul eth-Thalathat, Tell V: Fukai 1974, pl 58: 18, seal, middle Ninevite V.
 Telul eth-Thalathat, Tell V: Fukai 1974, pl 58: 20, seal, middle Ninevite V.
 Tell Raqa'i 3: Curvers and Schwartz 1990, 20 fig. 22, impression, final Ninevite V (design unclear).
 Alishar: Von der Osten 1937a, fig. 186: e455, seal, "Copper Age" (cf. Tarsus "EB III" (Amuq I-J): Mellink 1965, 112).

5.1.5 Fired steatite: hatched group, hatched ring patterns

Nineveh: Collon Yale 29, 31-34, impressions, 18-20 feet below datum (early Ninevite V).
 Collon Yale b, f, actual seals, out of context.
 Mohammed Arab 2: Roaf 1983, pl. 1:72, sherd (early Ninevite V).
 Mohammed Arab 2: Roaf 1984, pl. XIIIg, impression (early Ninevite V).
 Mohammed Arab 2: Roaf 1984, pl. XIIIi, sherd (early Ninevite V).
 Leilan IIIc: Weiss 1990b, 406 pl. 139 (FI 35), seal (late Ninevite V).
 Mulla Matar: Sørenhagen 1990, Abb. 28b, impression (final Ninevite V with some metallic ware).
 Gawra VII: Gawra I 46.

5.1.6 Fired steatite: hatched group, hatched diamond pattern

Assur: VR 50.

5.2 Probably derived from fired steatite

5.1.7 wave patterns

Jigan: Ii and Kawamata 1984-5, fig. 23:5, seal from Grave 14 (final Ninevite V).
 Mulla Matar: Sørenhagen 1990, Abb. 29a, impression (final Ninevite V).
 Leilan IIId: Parayre 1987-8, no. 4, impression (final Ninevite V).
 Mozan I fig. 35:173, impression from Mozan Area K glacis (ED III).
 Rimah: Parker 1975, no. 1, , seal out of context.
 Alishar: Von der Osten 1937b, fig. 248: d2907 (late context).
 Ebla: Impronte A14, sherd, Iron Age context.
 Nineveh: Collon Yale 77, impression.

5.2.2 excised triangles

- Ash 733, seal, loop-bored, perhaps from Tell Basher.
 Ash 735, seal, with wave pattern, perhaps from Tell Basher.
 Hama J5: Imprime B102, sherd (Amuq I-J).
 Nineveh: Thompson and Mallowan 1933, pl. 65:35, impression, out of context.
 Tell Mohammed Arab grave: Roaf 1983, 73, fig. 4:17, seal (beginning of late Ninevite V).
 Tell Mohammed Arab grave: Roaf 1983, 73, fig. 4:19, seal (beginning of late Ninevite V).
 Tell Mohammed Arab: Roaf 1984, pl. XIIIh, impression (Ninevite V).
 Chuera: Moortgat-Correns 1988a, 26, Abb. 14, impression (fill redeposited in ED III).
 Chuera: Moortgat-Correns 1988a, 23 Abb. 11, impression (fill redeposited in ED III).
 Rimah: Parker 1975, no. 4, seal (late context).

5.2.3 various

- Kutan: Forest 1987, fig. 10, upper, impression (middle Ninevite V).
 Tell Mohammed Arab 3: Roaf 1983, pl. 1: 23, seal (late Ninevite V).
 Nineveh: Collon Yale g, seal, no context.
 Tell Fisna: Numoto 1988b, fig. 39: 483, impression, figurative (early Ninevite V).
 Kutan: Bachelot 1987, 93 fig. 11, impressions, hatched designs (middle Ninevite V).

5.3 Distribution

In discussing the fired steatite style I shall use a slightly different typology from that used by Pittman. In the Hatched Group, Pittman (1994, 142) has six basic geometric types, band, triangle, rhomb, arcade, wave and circle. This is an elegant and appropriate system which reveals the way in which a combination of initial straight and curved forms, treated singly, extended or reflected, generates the six basic patterns. In each case a second pattern is obtained by the extension of the same form, either rotated through a half turn (wave) or reflected through a vertical axis (triangle), and a third by reflection of the second pattern through a horizontal axis¹⁰¹. Here however I am primarily interested in the material from the Ninevite V area, where the evidence is often in broken seals or impressions in which it is obvious whether the main element is straight or curved, much less so what transformations have been applied to it. The main types are thus "arcade" for curved forms and "ladder" for straight ones, and these are used also as default types where the pattern is uncertain. "Rings" are retained as a type because they are particularly common in our area, but the wave and diamond are rare and are not treated separately. As Pittman's "triangle" is not drawn as a separate triangle, but as two ladder-forms between two horizontals, I have not seen it as a separate type either.

In all these patterns the main form is duplicated and the band between the two lines is hatched. There are also patterns where the main form is not hatched. Circles, normally containing rosettes, are an important element of the multiple element group, but I would not assign all of them to that type. The same goes for figurative designs. Excised triangles were often used as a filling element or as a border motive on fired steatite designs, with no obviously patterned distribution (Pittman 1994, 137); but they can also form the basis of the whole design.

Pittman says (1994, 253) that the fired steatite style and Proto-Elamite writing originated together in Susa Acr. 17. This is a statement which requires clarification, because geometric seals of other types certainly existed at this time, and it could be maintained that Proto-Elamite seals and writing originated later, in Susa 16. No Proto-Elamite glyptic or writing has ever been found stratified earlier than Susa 16. Nonetheless, on the basis of a new type of numerical tablet which was introduced in Susa 17, and a number of *unstratified* tablets of this kind which bear single writing signs, or seal-impressions in transitional Proto-Elamite - Late Uruk style¹⁰², Pittman maintains that Proto-Elamite writing must have originated in Susa 17 and is only missing there because of the small size of the Acropole sounding (Pittman 1994, 37-8, 80-86). Pittman says that level 17B was a domestic courtyard house covered by a thick layer of fill (17A) and then by an ashy erosion layer ("Contact Zone 17-16" or "17X" or "17AX") which represents an abandonment before Proto-Elamite culture arrives in Susa 16. Therefore any unstratified transitional material might be dated to the period of unknown length which is represented by the abandonment. In support of her position is a tablet from Godin Tepe V in which a tablet of Susa 17 type with a writing sign on it came from a Late Uruk assemblage. However not only is it unknown whether this sign is of Late Uruk or Proto-Elamite type (Weiss and Young 1975, 8,

¹⁰¹ Straight: single = band, extended = triangle, reflected = diamond; curved: single: arcade, extended = wave, reflected = circle.

¹⁰² Cf. Amiet 1980, 200, no. 1665; Algaze 1993, 17, 57.

fig. 4:2), but Godin V itself may be properly dated to the time of the hiatus between Susa 16 and 17 and the same can be said of similar material from Sialk (Algaze 1993, 57). Both the actual stratigraphic evidence and the general situation thus make it unnecessary and improbable that the Proto-Elamite script originated as early as the Late Uruk settlement of Susa 17B, though there was already by that time a change in the shape of the numerical tablets.

An impression of undubitable fired steatite style is reported from Susa 17 (CDAFI 1 fig. 44:18), but as no sub-level is given in the report, and Susa 17A and 17X were fill and erosion layers, this is hardly a secure stratification. Furthermore, the Late Uruk culture is now well understood from a large quantity of material excavated from many different sites (Algaze 1993). In this book I am accepting the criteria of Sürenhagen (1986, 30-32) which suggest that Susa 17B was contemporary with Habuba Kabira¹⁰³. The large corpus of glyptic from sites dated to this horizon shows that geometric seals were in common use; but the Susa impression remains the only case of the fired steatite style. This is supported also by the Sin Temple sequence at Khafaje. Fired steatite seals are very common in Sin IV but do occur occasionally as early as Sin II (Diyala 3) and III (Diyala 54). This is still however later than the Late Uruk period (Wilson 1986, 63-5) and the rarity of the type does suggest that it originated no earlier than the Jemdet Nasr period, before flourishing in ED I.

Pittman (1994, 221) says that the Hatched Group originated in Susa Acr. 15A and Khafaje Sin IV, i.e. the very beginning of ED I, whereas the Multiple Element Group began earlier in Susa 16 (CDAFI 1 fig. 59: 17)¹⁰⁴. However given the difficulties of the relative chronology, which is partly based on the presence of this seal style, and the shortage of evidence for this period preceding Khafaje Sin IV (in which both the multiple element and the hatched group are common), I do not think we can infer that the multiple element group originated earlier¹⁰⁵. In the absence of further evidence, it seems best to suppose that all three types of seal, classic Proto-Elamite, multiple element and hatched fired steatite appeared together over a wide area in the period immediately following the collapse of the Late Uruk system. Pittman has suggested that the wide range of design types attested at Susa makes it the most likely source (Pittman 1994, 248).

The height of the fired steatite style is evidently represented by the large deposit in level IV of the Sin Temple at Khafaje, at the beginning of ED I. Here we have every type of fired steatite design, including all the patterns used by the hatched group: arcades (Diyala 131-134, etc.), ladders (Diyala 128, 129, 138, 139, etc.), rings (Diyala 92-94, etc.), waves (Diyala 117-8, etc.), diamonds (Diyala 103-105, etc.) and excised triangles (Diyala 212). The multiple element group is also common, both in geometric (Diyala 80, 81, 86-88, etc.) and figurative forms (Diyala 78, 80). Contemporary sites elsewhere show that Sin IV is exceptional only in the quantity of material. Sherds from the earliest level VII at Tell Gubba¹⁰⁶, for example, include arcades (e.g. Gubba 57), ladders (e.g. 70), rings (e.g. 40, 41) and multiple element designs (34), and material of this date from Assyria shows the same range of patterns: Mohammed Arab 2 has arcades and rings¹⁰⁷ and we have seen a ladder pattern even earlier at Tell Karrana 3. Only the multiple element group is doubtful. The type exists at Nineveh (Collon Yale 21, 57, d, e, h, j) as also the Proto-Elamite impression Collon Yale 83 (Pittman 1994, 124), but the stratification of Nineveh is insecure.

Since all types of the fired steatite group were present throughout eastern Iraq and Assyria at the beginning of ED I, should pieces which are stratified higher be dated later? The Sin sequence at Khafaje suggests not. Only two seals of the style belong to Sin V (Diyala 218, 223), and even though only ten seals are reported from this level this is still less than half the proportion in Sin IV. No fired steatite seals were found among the eleven pieces from Sin VI-VII (Diyala 227-237). A few seals from ED II levels at Tell Agrab and elsewhere (Diyala 238, 241, 297, 472, 802?, 806, 813-5, 842, 869) are probably not significant in relation to the large size of the Diyala corpus and the anomaly which clearly exists in the Shara Temple. There are so many seals of styles even older than the fired steatite style from there¹⁰⁸ that antique seals must have been preserved there for hundreds of years.

Against this conclusion are some indications that fired steatite seals continued to be made and used at least until the end of ED I. The bulk of the sites excavated in the Hamrin district date to a time later in ED I than Gubba VII, and nearly all of them produced impressions of fired steatite style on sherds, in the case of Tell Madhhur found on the floors of the Round Building¹⁰⁹. Tell Razuk, on the other hand, is a little later (Gibson 1987, 502), and it alone

103 Cf. p. 38.

104 It is not clear whether the multiple element impression Ash 72 from Jemdet Nasr itself belongs to that period or to ED I, cf. R. Matthews 1992, 19, fig. 10:3.

105 Cf. the fragmentary impression from Level 3b at Tell Karrana 3 in the Eski Mosul region which could belong to the hatched group (Stein 1993a, pl. XLV:2). This is stratified before the beginning of the Ninevite V period; but further discussion is prevented by the use of the fired steatite style to establish the contemporaneity of Sin IV and early Ninevite V. See p. 40.

106 This stratum may be contemporary with Khafaje Sin IV ("Protoliterate d") or Sin V, cf. Killick 1986, 232; Moon 1986, 114. Cf. p. 17.

107 Roaf 1983 pl. 1: 72, 73; Roaf 1984 pl. XIII i. For the date in the early Ninevite V period see Pittman 1994, 221 quoting R. Killick.

108 Diyala 807-8, 817, 819, 825, 829, 844-6, 851-9, 868-72, etc., not to mention the even more numerous seals of simple cut style which are probably also archaic.

109 I owe this point to M. Roaf, pers. comm.

lacks the sealed sherds¹¹⁰. In the Ninevite V area the second phase of development of the pottery is where painted and incised pots are found together (Leilan IIIb). If material from Tell Kutan (Bachelot 1987, 91; Forest 1987, 86), Tell Durdara (Spanos 1988, 72) and Telul eth-Thalathat, Tell V (Roaf and Killick 1987, 216-7) can be assigned to this phase, then the prominence of fired steatite glyptic is evident. Of the two impressions reported from Leilan IIIb by Parayre one (1988, no. 7) belongs to our style.

The discrepancy between the Sin sequence and these other sites may be explained in one of two ways. First, the redeposition or retention of glyptic cannot be underestimated as a major factor in the distributions available to us. All of this material of later ED I or middle Ninevite V date may have been made in the earliest phase of ED I. Secondly, the material from the Diyala region at this date consists largely of ritual deposits in temples. It may be that the fired steatite style was more prestigious when it was first invented and that after Sin IV it became less fashionable to deposit it, or even to deposit at all. Of the two theories, I prefer the first, but the second may contain an important truth about the significance of the style. Pittman has proposed that the fired steatite designs were composed according to special principles as a part of a symbolic system of which they were a part (see below). It may be that this special function declined over time but that the seals continued to be made, by imitation of the stock of patterns already produced, without reference to a deeper signification. In this case the designs would have meaning only as a distinctive style, as has been suggested by various authors (Pittman 1994, 246). If the range of meanings carried by the seals was degraded in this way it might explain why they were not considered so suitable for ritual deposition.

It is unlikely that the fired steatite style continued in the Hamrin or Diyala regions after the end of ED I. The situation is different in the Ninevite V area. A group of geometric designs based on the wave pattern, listed above, may be derived from the fired steatite style. The Jigan, Mulla Matar and Leilan designs all come from the same time, i.e. the transitional phase between Ninevite V and stoneware, and to them may be added an impression from Mozan, whose context is rather later, and seals from Rimah and Alishar which are out of context. The style of the impressions is hard to judge, but the actual seals, where we can see the whole design, are not typical of the fired steatite style. The date and distribution however makes it likely that they originated under its influence. It is characteristic of these seals that the arcades are not complete, but interrupt each other, and this is true also of a sherd impression from Ebla (Impronte A14), which although found out of context, should not date as early as the other pieces.

At Tell Mohammed Arab, a cemetery containing incised and excised wares, and thus belonging to the later Ninevite V period, was stratified beneath the main Late Ninevite V levels (Roaf and Killick 1987, 207). Seals from this cemetery (Roaf 1983, fig. 4: 15, 17, 19) show patterns with an animal, circled dots and excised triangles. Other late Ninevite V seals from this site¹¹¹ include Roaf 1983, pl. 1: 23, 24 which have designs of circles and circled dots. This evidence thus shows that material closely related to the fired steatite style, but not of the kinds typical of Khafaje Sin IV, were being deposited at this time, which may suggest that the fired steatite designs were simply being used as one of the eclectic sources of the uninspired glyptic which preceded the cultural changes at the end of the Ninevite V period.

A comparable design of excised triangles exists in a seal from an ED II level at Khafaje (Diyala 238), either to be seen as an import from the north or as a redeposited old seal¹¹², and in an impression from Tell Chuera, Moortgat-Correns 1988a, 26 Abb. 14 from the layer of redeposited seal-impressions in the Kleiner Antentempel West-Erweiterung. This context tells us only that the object is not later than ED III. There is similar material found out of context at Nineveh (Thompson and Mallowan 1933, pl. 65:35) and Rimah (Parker 1975, no. 4), and this may be the best way to understand an impression from Tell Raqa'i stratified in the later Ninevite V period (Schwartz and Curvers 1992, fig. 17). Two seals in Oxford, Ash 733 and 735, perhaps from Tell Basher near Gaziantep, show further variations on the fired steatite theme with excised triangles and waves. This is west of the range of the fired steatite seals, but the loop-boring of Ash 733 confirms the alleged provenance and suggests a date contemporary with the EB I Aleppo Series. A sherd from Hama is dated, both by its stratification and by the date of the other sealed sherds from the Orontes valley, to EB III (Impronte B102). This sherd was therefore either impressed with an antique seal, or else it demonstrates the late survival of excised triangle designs. This material therefore indicates that the fired steatite style provided inspiration outside its distribution both in space, in EB I western Syria, and in time, in the Ninevite V area. The designs based on circled dots in the Aleppo glyptic may be further evidence for the influence of the fired steatite style on the glyptic of the west in EB I (see p. 87).

¹¹⁰ Pittman 1994, 116-119: n.b. at Ahmad al-Hattu the sealed sherds came from the settlement, not the cemetery, and it is the pot type in question, not the sealed pots as such, which represents 20-25% of the inventory (Sürenhagen 1979, 111, Abb. 7).

¹¹¹ Pittman 1994, 221, citing R. Killick.

¹¹² Cf. Diyala 7 from Sin II in which, however, the excised shapes are lozenges, not triangles.

5.4 Pittman's theory

The fired steatite style has recently been the subject of a monograph by Pittman (1994). She adopts an unusual structural approach and discusses the principles of composition which were employed in designing the seals of this style.

Following other authors, Pittman divides the fired steatite seals into two groups, which she calls the Hatched Group and the Multiple Element group; unlike her predecessors, she realises that the essential difference between the two groups is compositional, not formal. In the hatched group, the whole seal surface is divided by large hatched bands according to a simple geometrical form such as an arcade or a circle; subsequently the spaces left over are filled with smaller motives whose choice is constrained by the geometry of the space available. In the multiple element group, between one and five elements are combined to form the design, usually in a simple composition side by side. Each element varies independently of the others so the principle resembles that used in writing. Pittman distinguishes between seals where one of these elements is an animal and seals where they are all abstract; but she shows that the animal had the same force in the syntax as the other symbols, and also that the presence of the animal does not correspond to any clear distinction in the use of the other symbols (Pittman 1994, 201, 258), so the division into two subordinate groups with and without the animal is not justified.

Pittman investigates the combination of symbols in the multiple element group and concludes that it was not governed by geometry, or the narrative of a scene, or by random combination: "the rationale for choice seems to be embedded in the individual significance of each of the individual design elements" (Pittman 1994, 206)¹¹³. She investigates the links between the fired steatite seals and the administrative practices of the Proto-Elamite culture. She identifies four common features between the fired steatite seals and the Proto-Elamite writing system, namely: the use of abstract design elements; variation through the use of infixes, adfixes and ligatures; messages formed from small groups of signs; and similarities in the shapes of the most common individual signs (Pittman 1994, 254-7). Because of the evidence about how the seals were used, she rejects the idea that the style was used in the maintenance of trade links and suggests instead that it was used to convey information needed by local systems of administration (Pittman 1994, 260-1).

Although both types of fired steatite design occur over the whole range of the style from Nineveh to highland Iran, the hatched group is more prominent in the western sites which are now in Iraq, while in Susiana and the Iranian plateau fired steatite seals accompany the writing and other features of the Proto-Elamite culture which are missing from the west. Pittman therefore proposes that writing was used to govern relations between Susa and the plateau, whereas the fired steatite seals covered administrative contexts which were not complex enough to require writing, or in which linguistic differences made writing unsuitable (Pittman 1994, 261-2). She does not however believe in independent administrative systems: the archaeological evidence rather suggests to her an integrated system monitoring a variety of transactions (Pittman 1994, 245 n. 6). At the end of what she calls the "early Early Dynastic I period"¹¹⁴ the Proto-Elamite civilisation collapsed and glyptic became separated from writing. Writing signs were no longer integrated into seal designs, but were added as a separate entity like a caption; seals were no longer rolled on tablets; and the principles of composition became dominated by decorative considerations. Pittman suggests that this may have been a result of a closer linkage of writing to natural language. This would have freed art composition from the restraints of meaning (Pittman 1994, 263-4)¹¹⁵.

Pittman suggests that the fired steatite seals were the first ones to use abstract design elements. This position enables her to propose that abstract "language-like"¹¹⁶ symbolic systems were introduced simultaneously into Susiana in a number of forms including glyptic and writing as part of the foundation of the Proto-Elamite administrative system and culture (Pittman 1994, 253-4). It rests however on two assumptions, one to do with chronology, and the other with the definition of the fired steatite style. I have discussed above the problems of stratigraphy and typology which lead me to reject her view that the fired steatite style and the Proto-Elamite culture originated together in Susa 17. Since geometric seals of Uruk type certainly existed in the Late Uruk of Habuba Kabira and elsewhere, the fired steatite seals are not the earliest geometric cylinders.

The second assumption concerns the definition of the fired steatite style. Pittman's definition depends on the material, which is usually soft steatite or chlorite, engraved and then fired to increase its hardness and to give it a white glassy surface. It is not known whether any substance was in fact applied to the surface during this process, and for this

113 Further discussion of this point would have been helpful to see if any patterns are discernible above the level of discussing each design element in turn, which she has covered fully. An excessively involved system of reference makes it difficult for the reader to follow the combinations, but sketches of each combination of elements are provided, which is very helpful.

114 Perhaps this means what used to be called ED I before it was suggested that early ED II was also part of ED I. It would be better if well-established systems were not interfered with unless they were shown to be actually incorrect. The question here is not about the course of events, only about how to label them, and this should not be sufficient reason to make a change.

115 For the compositional restrictions necessary for "language-like" communication, cf. D. Matthews 1990, 13.

116 She does not use this term.

reason I call it "fired steatite" rather than "glazed steatite". Having collected all seals made of this material, Pittman then added further seals which had the same type of designs, amounting to some 12% of her corpus (Pittman 1994, 133-4). The problem is that it is by no means clear that all these seals should be counted as belonging to the same style. Here we come to the intuitive aspects of classification which *cannot*, in principle, be objectified. The difference between fired steatite and other geometric designs lies partly in the compositional principles involved. Where fired steatite composes either by applying a geometrical figure to the entire field and then filling in the gaps, in the hatched group, or else by the combination of different elements, in the multiple element group, the geometric seals are usually composed by the repetition of the same element to make up a larger pattern. This procedure is similar to that used in the hatched group, but the outcome is less organic. Thus I see a design like Diyala 8 or 9 essentially as a diamond pattern in which the individual elements are not lines, as in the "diamond pattern", but lozenges; and I therefore assign it to the group which I call "archaic lozenges". Pittman, however, sees these designs as "quadrilobes" arranged in pairs according to the composition of the multiple element group¹¹⁷. To some extent, the difference between us here is intuitive and irreducible, but there is a further problem. The composition of the "archaic lozenge" seals has more in common with the hatched group than with the multiple element group, in that the outcome is a unified geometric pattern spread evenly over the field. But Pittman places it in the multiple element group, in which different elements should be combined with no links between them (Pittman 1994, 173). These seals therefore do not fit the distinctions which she is rightly using to order her corpus, and therefore they probably do not belong to it. This point can be illustrated by considering the materials. Pittman lists nine seals from the Diyala region under her image type 13 which I would classify as "archaic lozenges". Of these three (Diyala 10, 96, 840) are made of fired steatite and six (Diyala 8, 9, 51, 97, 98, 459) of other materials such as calcite and frit. So here 33% are made of fired steatite, in contrast to the 88% of Pittman's corpus as a whole¹¹⁸.

This therefore raises the possibility which Pittman specifically excludes as an initial assumption, that seals were made of fired steatite which do not belong to the fired steatite style. I have no doubt that this was indeed the case, as is illustrated by two seals of "stéatite brulée" whose geometric designs have no particular resemblance to the fired steatite style – excavated in Susa 17¹¹⁹.

Thus certain innovations which were made at the end of the Uruk period (Susa 17), including the origin of geometric seals, a new kind of numerical tablet, "squatting ladies" seal designs, and the invention of fired steatite as a material for the manufacture of seals, were part of the development of the Uruk culture attested over a wide area, and were not associated with the origin of the Proto-Elamite culture. Subsequently (probably in the hiatus between Susa 16 and Susa 17) the features of that culture, its glyptic, its writing and the fired steatite style were developed in a smaller area. While I accept that the fired steatite style should be seen in the context of the origin of Proto-Elamite administration, this should not be confused with inventions of the Late Uruk period, and in particular, the earliest geometric seal designs should not be seen as a "language-like" development closely analogous to the structure of writing.

The hatched group, on the other hand, could be a deliberate adaptation of the principles of composition of the Uruk geometric seals which existed before it. I described the principles of composition of the hatched group above, in terms of the extension and reflection of simple straight and curved forms¹²⁰. It is possible to see the Uruk geometric patterns in a similar light. The triangle pattern results from the simple division of the rectangular field by oblique lines. An extension of this concept by the addition of further oblique lines yields the chevron pattern or the lattice. Reflection of it about a horizontal axis gives the diamond. Similarly a simple curved motive gives the lozenge pattern; its unified extension over the whole field is the wave, and horizontal reflection of the wave produces the guilloche. In each case the main pattern is drawn by single or parallel lines and the background is hatched. These types comprise virtually all of the geometric designs of the Uruk period. The fired steatite seals of the hatched group inherited the same ideas about how to divide up the field, but characteristically they defined the different scenes more systematically and they asserted their own easily recognisable nature by the use of fired steatite, by long thin proportions (so explicitly different from the short squat Uruk seals), and above all by hatching the main motive, not the background.

The next comparison proposed by Pittman between the fired steatite style and Proto-Elamite writing concerns the use of infixes, adfixes and ligatures. Unfortunately, this applies only to the hatched group seals¹²¹, which in other respects are structurally much less similar to the writing than the multiple element type seals which have small groups of signs in a manner similar to the texts (Pittman 1994, 256).

117 Her Image no. 13. Diyala 107 shows what happens when "quadrilobes" are composed according to the principles of the multiple element group.

118 While no definition of the style would exclude every seal not made of fired steatite, adjustments such as those I am proposing would lower the proportion.

119 CDAFI I, fig. 44: 11, 13.

120 Straight: single = band, extended = triangle, reflected = diamond; curved: single = arcade, extended = wave, reflected = circle.

121 Pittman 1994, 173: multiple element group shapes do not intertwine.

Finally she suggests that the most common symbols in the writing system and in the fired steatite seals are the same. This is best tested through the signs which she says are most common in the texts, namely Meriggi nos. 136 ("hairy triangle"), 157 ("DUB") and 325/327 ("cross") (Pittman 1994, 253, fig. 29). She has no difficulty in showing that these writing signs do exist on Classic Proto-Elamite seals, where they appear in the upper field rather in the manner of an Indian stamp seal. I cannot agree, however, with her proposed correlations in the fired steatite seals. Meriggi 157 does not look like the "hourglass", and while there is commonly a cross on our seals, this is such an obvious symbol that a similarity is not surprising¹²². Most crucial is the "hairy triangle" which Pittman compares to the "tree-motive" on the multiple element group of the fired steatite seals. Unfortunately, not only are the two symbols unlike (the tree has no hatching round the outside and is oriented the other way up), but classic Proto-Elamite seals make use of both signs (GMA 537, 577, 580, 585). Can we suppose, if all three media (the writing and seals in two styles) were part of the same administrative system, that the same symbol would appear in more than one form in the same medium? The suggestion that the hatched triangle which occurs in the hatched group might also represent this sign (Pittman 1994, 259) should also be rejected because such a triangle is naturally generated by the principles of composition of the hatched group seals.

5.5 Function of the fired steatite style

The wide distribution, easy definition and range of depositional contexts of the fired steatite seals gives us unusual opportunities to consider why they were made. The analysis of the principles of composition reveals three main groups which implies that three different kinds of message were present. First, the multiple element group seals used, as Pittman demonstrated, a "language-like" symbolic system. They existed in Iran and in eastern Iraq, but are present in the Ninevite V area only at Nineveh¹²³. The seals could have carried specific messages, either about the person who used the seal or about the product which was sealed, in the manner described by Pittman: the *design* was the message.

Second, the hatched group is well distributed in Iran and all over eastern and northern Iraq, with a significant number of cases from eastern Syria, though nothing like so many as in Assyria¹²⁴. The hatched group seals use principles of composition similar to those used by the geometric seals, in that a simple geometric form covers the entire seal surface and the rest of the surface is then treated according to their geometry. These seals probably conveyed the message that the seal or sealing belonged to the cultural sphere in which fired steatite style was appropriate: the *style* was the message.

Third, there are several kinds of seal which are similar to fired steatite designs. As just remarked, geometric seals sometimes resemble fired steatite ones in their designs, and they also sometimes used the material of heated stone. Pittman classes these seals together with the fired steatite ones, but as discussed above, I believe that they are an independent phenomenon of earlier origin. There are also designs, especially involving rings and excised triangles, which seem to be especially typical of the Ninevite V area and which may have continued there after the end of the main fired steatite style in the east at the end of ED I. And finally there are seals using the circled dot and other apparently "fired steatite" elements which have a much wider distribution in EB I, especially in the seals of the "Aleppo Series" and perhaps also in derivations from it. Derivative designs which used "fired steatite" motives, without apparently understanding how they should be composed, are not separating this style from other sources of inspiration which were used in composing designs. Therefore only the fact that *the object is a seal* remains as a message.

The same style was used in three or four different systems. First, in the Proto-Elamite area, the fired steatite seals were an integral part of the central administration, though it was not the seal style normally used on the tablets. This is clear from the evidence presented by Pittman. Unfortunately we do not have much information from Proto-Elamite sites about the social contexts in which it was used, but the functional evidence suggests security of storage (jar and peg sealings) and at Malyan the style was found in the domestic or industrial site TUV, not in the public area ABC (Pittman 1994, 50-53, 95).

Second, in the Diyala region, we find the actual seals being deliberately deposited in the Sin Temple. The fired steatite style was not the only style used in the region, and by analogy with the evidence from Elam and from Sumer, probably not the highest status style. In both of those regions, the principal style, in which the best quality seal-cutters were employed, was a direct derivative of figurative Uruk glyptic, ED I in Sumer, classic Proto-Elamite in Elam. A

122 There are according to Pittman 5000 variant forms of Proto-Elamite writing sign representing 200-400 basic signs, and she has 82 design elements in the seals (1994, 172, 252). The majority are abstract and geometric. We must therefore expect many chance similarities. The number of design elements would be reduced if seals of ordinary geometric type were excluded.

123 Pittman assigns more seals from the north to the multiple element group, including for example Gawra I 47 which I am counting as "figurative with circled dots probably under the influence of the fired steatite style". As discussed above, problems of classification of this kind are impossible to remove, though more evidence would certainly help us to see where the "natural" boundaries between types are.

124 This may be because more sites of EB I-II date have been excavated in Assyria than in eastern Syria.

comparable style did exist in the Diyala region¹²⁵ and therefore the fired steatite seals are not likely to have directly symbolised the central institutions of society. The Sin Temple at Khafaje shows that our seals were deposited in large numbers in a religious context. Given the conservatism which was normally shown in the siting of temples, it is likely that the main temple of the city was then as later on the site of the Temple Oval, and therefore that the Sin Temple was a suburban chapel, though one of some antiquity and, therefore, sanctity. It may therefore have been the special place of worship of some section of society different from the officials who were the principal organisers of the town. Both of these pieces of evidence thus suggest that the fired steatite style was not the main medium used to symbolise the central administration.

Third, the style was used at Nineveh for securing baskets and other containers (Collon 1988, 4). There is no evidence for association with public institutions in the Ninevite V area, but it remains controversial whether they had any such institutions. We find characteristic differences in the fired steatite of Assyria compared to the regions further east, especially in the use of an upright quadrilobe instead of the cross (Pittman 1994, 162, 194). It may be that no higher system of administration existed in the Ninevite V area, but trade links governed by seal-impressions were maintained along the Zagros piedmont route to the east. This trade was between regions which had different levels of cultural sophistication, and not surprisingly the less developed society used the symbolic system of their trading partners. But the signs of local variation of the style indicate that the merchants were local people using a foreign system, not foreign people using their own system. This is further confirmed by the derivative designs which appear in more distant and later contexts. The Ninevite V people probably never knew what the fired steatite style meant in Elam, only that it was a proper way of laying out a seal design, and even after the links to the east had been weakened in ED II they continued to make seals in the same tradition.

Fourth, the style was used in the Hamrin district on bag-shaped pots which were sealed before they were fired. The pots were too friable to be transported¹²⁶ but were designed to convey information. The sealings are on the rims and ribs where they would have been most visible. It is not likely that the seal-impressions represent "branding" of high prestige commodities such as could be proposed for the EB III-IV sealed vessels of western Syria (Mazzoni 1984, 32-33). A profile with a neck and out-turned rim would make much better sense for transporting goods by donkey as a more secure closure could be fitted¹²⁷. It may be suggested therefore that these pots were made to facilitate the transfer of goods to or from identifiable persons, though since the seals were applied before the pots were fired they could not have been used to secure property. The sealings would have conveyed information about the pots (e.g. to whom they belonged), not about the contents of the pots as in a normal jar sealing.

Interpretations of the fired steatite style should account for the quite different contexts in which it was used in each of the four main regions. A simple explanation will not account for the facts; the proposal made below may well not be true but any solution will have to have a similar level of complexity. At Nineveh the style occurs on basket sealings, most easily understood as part of a trade system; at Susa apparently as a secondary part of the state administration system; in the Diyala region in a secondary ritual context; and in the Hamrin perhaps as part of a redistribution system. These sites belong to three different pottery regions, Ninevite V, Proto-Elamite and Scarlet Ware respectively, so the seal style is not likely to be identified with the main ethnic group in all cases; on the other hand there is no evidence to suggest that it was used by "colonists" separate from the people around them. The local features of the designs from Nineveh, and the continuance of related styles in the Ninevite V area apparently after the end of the wider system, do not suggest that the style was regarded there as an alien intrusion. It may therefore be better to see the style as a conveyor of information than as an ethnic marker.

Since the other features of the Proto-Elamite civilisation are missing from the sites in Iraq it seems unlikely that they were under its political control. Lacking political links the most likely reason for connections across ethnic boundaries would be trade; but the Hamrin sealed pots look more like evidence for redistribution than for trade. Accepting Pittman's proposal that the style was used in the context of Proto-Elamite state administration, the evidence would be economically accounted for if the seals were used to establish mutual recognition by actors in a trading system which was anchored at its eastern end under the direction of the proto-Elamite state (Amiet 1980, 201). Although a trade system is excluded by Pittman (1994, 260-1), this rests on her understanding of the

125 The similarity of a modelled style found in all the Diyala sites to Uruk glyptic shows that there was a continuous tradition of engraving. However none of the contexts has to date earlier than ED II (Tell Agrab: Diyala 797-8, etc.; Khafaje: Diyala 307; Tell Asmar: Diyala 462). Diyala 486 and 487 are from a Protoliterate d context, but they are impressions and may be imported (see p. 131). Therefore either this style did originate in ED I, but the limited exposure at that depth and perhaps functional constraints in rich deposits like the Sin Temple mean that we do not have any examples; or else some of the seals of "Uruk" style found in ED I contexts were actually made at that time (e.g. Diyala 219). I think the former solution is more likely, because in ED II they were making ED II style seals. Most of the objects in this style come from the Shara Temple which was a repository of antique seals.

126 M. Roaf, pers. comm.

127 Roaf 1982, 45: "coarse grog-tempered bag-shaped pots"; for profiles cf. Ii 1988a, 103 fig. 4, c. 60 cm high.

functional evidence, which may be questioned¹²⁸. On the contrary, I believe with Collon (1987, 20-23) that there must have been a trade system mediated by the use of fired steatite cylinder seals along the Piedmont route from Susa to eastern Syria. Persons resident in the Diyala and Hamrin regions may have participated in the Piedmont trade without being under Proto-Elamite control. A guild of merchants, situated in the Hamrin, could have regulated the trade according to agreements with the Proto-Elamite state, while themselves using the fired steatite style both to establish recognition in Elam and to promote their own internal solidarity by means of a redistribution system. Political power in the Hamrin region is much more likely to have resided in the Diyala cities, and the ritual deposits there may be evidence for the maintenance of ties between the merchants and the authorities there through a mechanism involving religious observance. For example, if a guild of merchants existed, it might have been given a contract to administer the trade running through the Hamrin region from the round buildings¹²⁹, in return for payments to the central institutions of the Diyala cities.

¹²⁸ She says that chaff marks on the backs of peg sealings and clay strips show that they were types of door sealings (1994, 45, 52-3). I do not agree with this even for the peg sealings (see p. 178), while the clay strips are more likely to have been made just to see what the seal design looked like. In any case, most of the impressions on bullae outside Elam are on basket sealings.

¹²⁹ Gibson 1987, 473 thinks that these buildings are too large an investment to have come from the Hamrin district alone.

B EARLY BRONZE AGE GLYPTIC: NATIVE TRADITIONS

1. Derivative EB I-II glyptic

The distinction between geometric and figurative designs, which was maintained in the Uruk period, broke down in EB I in the Aleppo Series glyptic which included both geometric and figurative scenes. Geometric designs of Uruk inspiration continued to be made in traditional form, but the new geometric patterns which were invented in EB I and later could be used either on their own or in conjunction with figures in the same scene.

1.1 Circled dots

1.1.1 Geometric: western sites

Amuq fig. 254:2, Amuq G, loop-bored.
Amuq fig. 254:3, Amuq G, loop-bored, with diamond pattern.
Amuq fig. 381:5, out of context, loop-bored.
Aulock 125, bought Aleppo, loop-bored.
Amuq fig. 381:3, no context, pierced lug handle, with diamond pattern.
Amuq fig. 381:4, no context, pierced lug handle, with chevron pattern.
Sendschirli V, Taf. 39e, pierced lug handle, with diamond pattern.
Aulock 126, bought Aleppo, with handle.
Ash 720, perhaps from Tell Basher.
Alalakh: Ash 747, late context (and perhaps made later: Collon 1982a, 60, no. 27).
Sendschirli V, Taf. 39f, with diamond or triangle pattern.
Aleppo II 308, said to come from Tell Habuba Kabira.

1.1.2 Geometric: eastern sites

Mohammed Arab: Roaf 1983, 91 pl. 1:24, seal of fired steatite material, later Ninevite V period.

1.1.3 Figurative with circled dots: western

Ash 719, seal, loop-bored, perhaps from Tell Basher.
Ash 719A, seal, loop-bored, Poche Coll., Aleppo.
Byblos II pl. 192:6836, seal, surface.
Amiet 1963, pl. V:1, seal, bought Beirut.

1.1.4 Figurative with circled dots: eastern sites

Mohammed Arab: Roaf 1983, fig. 4:15, seal of fired steatite material, from grave, beginning of late Ninevite V.
Nineveh: Collon Yale 80, impression.
Gawra VI: Gawra I 47, seal (final Akk or later context).
Rimah: Parker 1975, no. 2, seal (late context).

The distribution of designs based on circled dots can leave no doubt that they belong to EB I in the west, especially in the seals of the Aleppo Series which are characterised by unusual methods of attachment¹³⁰. Apart from Roaf 1983, 91 pl. 1:24 from Tell Mohammed Arab, it is not clear whether geometric designs mainly composed from circled dots existed in the east¹³¹, though there are figurative cases which should also be dated to ED I, as is clear from an impression from the Hamrin (Gubba 3) and a seal from Khafaje Sin IV (Diyala 79). The context of Gawra I 47 should therefore be disregarded: it is very similar to Roaf 1983, fig. 4:15 from Tell Mohammed Arab which has a much earlier context. Circled dots do however frequently occur in seals of the fired steatite style of eastern and northern Iraq, for which see above, pp. 77 ff.

¹³⁰ Cf. also in collections, Yale 226, Marcopoli 313. It is questionable how many of the seals in the Aleppo I catalogue of this type are genuine (nos. 11-17). Amiet 1963, pl. V:5 (GMA 1644) and Amuq fig. 297:5 show the circled dot in use in seals of schematic Uruk/Jemdet Nasr type.

¹³¹ Gubba 32, perhaps part of a fired steatite style design. The question is complicated by the difficulty in some distorted impressions of deciding whether the true circled dot, probably made with a tubular drill, or some kind of more or less irregular swirl is present.

Given the prominent role of the circled dot in fired steatite glyptic, this may be the source of the concept in the west. The fired steatite style originated in the east, perhaps in Elam, probably in the Jemdet Nasr period, and reached its greatest popularity there at the beginning of ED I. At this time (middle Amuq G in the west) it may have influenced the Aleppo Series through the use of circled dots in designs which owed more in their composition to the diamond pattern, which was derived in the west directly from Uruk glyptic. The circled dot thus became included in the formless mass of motives which comprised the repertory of the west in EB II, and it was combined with animals and other items there.

1.2 Swirls

1.2.1 Series with simple patterns related to Uruk designs

Arslantepe VIB: Palmieri 1981, fig. 10:1, seal (Amuq G).

Ebla: Impronte A28, sherd (Palace G).

Tarsus II fig. 397:10, intrusive, sherd.

1.2.2 Series with simple orderly patterns

Amuq fig. 235:7, Amuq G sherd.

Tarsus II fig. 396:4, Tarsus "EB II", sherd.

Halawa II Abb. 69:5, sherd, (late EB II or earlier).

Halawa II Abb. 69:7, sherd, (late EB II or earlier).

Šamseddin: Boese 1991, Abb. 32, surface, sherd.

Munbaqa: Boese 1991, Abb. 34, sherd (quadruple spirals; EB IV).

1.2.3 Series with figures

Alalakh: Impronte B127 (Woolley 1955, pl. 108g), sherd (late context).

Alalakh: Collon 1982, no. 1, seal, with handle (late context).

Amuq fig. 369:4, impression on terracotta object (out of context).

1.2.4 Series with complex disorderly patterns

Ebla: Impronte A23, sherd (Palace G).

Ebla: Impronte A24, sherd (Palace G).

Hama J4-5: Impronte B112, sherd (early Amuq J).

Ebla: Impronte A5, surface, sherd.

Byblos II p. 705 fig. 839, pl. 193:14541, seal, not pierced.

Tarsus II fig. 397:14, sherd (MB context).

Ash 740, seal, bought Amrit (Syrian coast).

Al Mina: Ash 743, seal (late context).

Amuq fig. 381:6, seal (out of context).

The swirl pattern is ill-defined, consisting of those patterns which are dominated by curved lines which are not formed into carefully drawn circles or other geometric shapes. It thus grades into other patterns such as spirals and lozenges. Although the swirl pattern is not rare, few of the examples are stratified and those that are tend to be sherds, which may be particularly likely to be redeposited. Nonetheless it seems to be possible to suggest some lines of development, namely an earlier series, which is more orderly, and a later series, which is less so.

The earliest object listed above may be the seal from Arslantepe, which has much in common with the lozenge designs of the Late Uruk period, except that the curves are directed out of the field rather than into it. Diyala 171, from the Khafaje Sin Temple IV, is another example, and a sherd from Palestine (Lapp 1989, no. 3), though found in a later context, has a similar pattern. This material may mean little more than bad copying of Uruk models in the EB I period¹³². Further sherds from Ebla (Impronte A28) and Tarsus (Tarsus II fig. 397:10) have a similarity which is probably accidental. In the Diyala region experiments of this kind may have led to a few designs which are entirely composed of swirls (Diyala 298, Gubba 24, 25). The Amorgos seal (Ash 741) is similar, and probably belongs to

132 Cf. also CDAFI I fig. 59:10, impression from Susa Acr. 15A.

the EB I of North Syria, because it fits with the other material from there (especially the Amuq G sherd, Amuq fig. 235:7) and because it has the typical lug handle¹³³.

If these seals do not have much significance in themselves, they may have helped to inspire a much more important series which we find on Palestinian sherds (Ben-Tor 1978, type IE). Two of these sherds, from Hazor¹³⁴ come from an EB III context which contained Khirbet Kerak pottery (Ben-Tor 1978, 43, 45), which in terms of the chronology followed here represents Amuq H or Amuq I. The series is characterised by a field divided vertically into large panels, each occupying the whole height of the seal and filled with chevrons, the swirl or a ladder-pattern. We find similar material in the sherds from Halawa, Munbaqa and Šamseddin, which suggest between them a date in Amuq H. The Munbaqa sherd, although found in a later context, includes the quadruple spiral which seems to be clearly connected to EB I or earlier (see p. 58). Halawa B is regarded as an early third millennium site, but the presence of metallic ware in the top material indicates that it must come down at least to EB II (see p. 39)¹³⁵. The sherd from Tarsus "EB II", i.e. Amuq H or early I, also fits such a conclusion.

The same compositional principle was used on a small series which has figurative items beside the swirl. This type seems to originate in EB I, to judge from two impressions from Tell Gubba (Gubba 6, 23). A sherd from Susa (GMA 593) is out of context but should probably be dated to this time, like the Munbaqa sherd mentioned above, on account of the quadruple spiral (see p. 59). A seal from Tell Agrab (Diyala 876) was found on the surface, but most of the material from this site is ED I-II. Comparable material from the west is probably out of context. A seal from Alalakh (Collon 1982, no. 1) has a handle, which is again typical of EB I. A sherd from Alalakh (Woolley 1955, pl. 108g), though found in a later context, should probably be dated with it; and so, perhaps, should a sherd from Bab edh-Dhra' in Palestine, from an EB III context (Lapp 1989, no. 6), and the sherd(?) Amuq fig. 369:4.

Among the EB III-IV sherd impressions from Ebla and Hama are several in which the swirl is used as part of a geometric design which has none of the sense of order which we found in all the designs of the EB I-II series described above. The surface of the seal was covered with similar elements to those used before, swirls, chevrons, boxes, etc., but without any coherent overall plan (Impronte A5, A23, A24, B112; also Tarsus II fig. 397:14). Most of the other sherd impressions of this time have well-ordered compositions, but these latter do not include the swirl¹³⁶. A coherent group of actual seals, from Byblos, Al-Mina and the Amuq (also Ash 743 bought in Amrit, and Newell 650), all from bad contexts, are very similar in composition to the sherd impressions with swirls. Actual examples are missing for many of the design types used on the Ebla and Hama sherds. The fact that here we do have original seals suggests that this design type may have been used in a different context from some of the other kinds of design used on the Ebla and Hama sherds, and therefore it is not surprising that they do not subscribe to the more normal standards of design composition. The seal type may not have been really made for use on sherds, but since the seals existed, they were occasionally so used. The same is doubtless true of the Early Dynastic seals sometimes used on sherds (e.g. Impronte B90, B147).

To summarise, designs based on the swirl pattern are not known to have been made before the EB I period. At that time, adaptations of the Uruk inheritance were being made both in the east and in the west, and simple swirl patterns appeared, perhaps as no more than a degeneration of earlier forms. The similarity of several designs with swirl patterns, including both geometric and figurative forms in the rest of the scene, to compositions built around the quadruple spiral, indicates a particular origin in the Aleppo Series of the EB I period, but the Gubba sherds show that similar experiments were made in the east also.

These seals have hardly enough coherence, either in their designs or in comparison with each other, to qualify as a design type; but they constitute the most likely point of origin for the earlier series of sherd impressions based on the swirl combined with other geometric shapes to form simple but effective designs, known from Palestine, Halawa, Munbaqa and Šamseddin. The evidence for the dating of this group is not clear, but they could have been made in EB II/Amuq H, though some of them are stratified later. They are a distinctly western type.

In EB III-IV some sherds from Ebla and Hama indicate that a type also known in actual seals from various sites was used, perhaps mainly not on sherds¹³⁷, in which much the same elements as were used in the previous series were combined more or less at random to make crude designs with little sense of composition. The history of the swirl pattern thus follows two whole cycles of the process of development and decay in design types.

133 Dr S. Sherratt informs me that she does not believe that the Amorgos seal was a local Aegean product. The provenance on Amorgos relies on the word of a dealer, but the alleged associated objects could have come from there.

134 Ben-Tor IE 6,7, impressed by the same seal.

135 The excavators of the Šamseddin sherd compare the rim to the middle and late phases of the Early Bronze Age (Boese 1991, 108); but EB I materials are so deficient from this region that this statement cannot be taken negatively. They do deny the possibility of an Uruk date (*ibid* 107).

136 Except Mazzoni 1993: A47.

137 Very few seal-impressions not on sherds have been published from the western area; and, in general, lower quality seals tend to be under-represented among impressions.

2. EB I-II figurative sherd impressions

The idea of impressing seals onto pots before they were fired¹³⁸ is first attested in the Levant¹³⁹ in numerous impressions of geometric stamp seals on jar handles from the Eneolithic cemetery at Byblos (Dunand 1945). Similar material is also known from Ugarit (Moorey 1990, 64) and two sites in Jordan (Helms 1991). A stamp seal from Arad may be related. It was found on the surface but the site dates to Palestinian EB I-II (Beck 1984, 97, 105, no. 9). These sherds were stamped by geometric seals and are not related to any of the subsequent glyptic styles of the Early Bronze Age. They illustrate only the early origin of the practice of sealing pots.

Nothing about the stratification of Byblos is certain, but Ben-Tor (1978, 71) believes that the Eneolithic cemetery was stratified below a level which contained pottery datable to the First Dynasty in Egypt. Some of the Byblos material might be even earlier. Prag (1986) has pointed to links between the Eneolithic cemetery and Egyptian material going well back into the fourth millennium. One should not reject the possibility that the tradition of impressing stamps on sherds began at Byblos before the arrival of Uruk influences (cf. Teissier 1987, 43). Another very early case of a stamped sherd comes from Arslantepe VIA (Mazzoni 1992a, 164: B166). This should be contemporary with the Late Uruk period (Sørenhagen 1986, 28, 31).

2.1 EB I animal rows on sherds

[No examples currently available north of Palestine]

The main tradition of sealing sherds with cylinders begins in Amuq G / EB I with a set of sherds from Megiddo which Ben-Tor maintains must have derived from a context older than Palestinian EB II (1978, 44). A sherd from Byblos¹⁴⁰ is described by Saghih (1983, 88) as the earliest cylinder impression from the site, coming from a context in Phase KI which may be contemporary with the later part of the First Dynasty, i.e. the EB II of Palestine or later Amuq G. These sites may be considered doubtful, however carefully the records have been studied by later scholars, but there is also material from more reliable excavations: a sherd from Amuq G (Amuq fig. 235:7) and one from Bab edh-Dhra' "EB I" (Lapp 1989, no. 2), both with geometric designs, and, most strikingly, an impression (FI 65) from En Shadud, an "EB I" site¹⁴¹ which may have been made by the same seal as one of the Megiddo sherds (Ben-Tor IIBa-2). The origin of the tradition by, at the latest, the earlier part of the First Dynasty (Palestinian EB I) or, in Syrian terms, middle Amuq G cannot therefore be doubted. The EB I sealed sherds from Hassek Höyük show that the practice should not be considered a Palestinian invention. Rather it was a general Levantine phenomenon whose origin is, on the evidence we have at present, most likely to be in Byblos¹⁴². Three of the sherds from Megiddo (Ben-Tor IIA-4,5, IIBa-2) show a consistent iconography with simple animal rows, in the last case including also a tête-bêche layout¹⁴³. Another sherd from Megiddo (Ben-Tor IIBa-1) is not stratified, but is thought to go with the others.

2.2 EB I "Narrative scenes"

Hassek Höyük: Behm-Blancke 1984, Taf. 11:1, sherd, Bauphase 2 (Late Amuq G: Conti 1993, 381).

Byblos II pl. 195:15715 (Impronte B80, Saghih 1983, pl. XXXIII), impression on sherd (Saghih KI = late Amuq G).

Hammam et-Turkman: Van Loon 1988, pl. 200:3 = FI 66, impression on bulla, surface.

Ben-Tor IIC-1, however, is quite different, with a detailed and fussy design of animal heads quite unlike the simple composition of the other sherds; Ben-Tor X-2, though very unclear, may go with it. Ben-Tor (1978, 76) compares it to stamp seals from Tepe Gawra and while I do not find this very convincing I cannot give a better account for the design. I suggest, however, that it may be related to an extraordinary sherd impression from Hassek Höyük (Behm-Blancke 1984, Taf. 11:1), which also features animal heads but which is dominated by two men carrying a jar hung

¹³⁸ For this subject in all its aspects, see Mazzoni 1992a.

¹³⁹ Unless the stamp impressions from Mersin are earlier: Garstang 1958, figs. 54:11, 138, 150:17, none with a satisfactory context.

¹⁴⁰ Impronte B80 = Byblos II pl. 195:15715.

¹⁴¹ Braun 1985, 29, pl. IX, fig. 32: 2, 3.

¹⁴² It is important to stress that even less archaeology has been possible in the last 20 years in Lebanon than in Syria, so naturally there is no local confirmation of the indications from Byblos.

¹⁴³ Cf. Moortgat-Correns 1985, Taf. 61, seal of EB I Aleppo Series type.

from a pole. Behm-Blancke (1984, 60-1) refers to ED I¹⁴⁴ Mesopotamia for parallels, correctly for the subject (Fara 226), but despite the busy scenes and many fillers, including animal heads, like in ED I glyptic, I do not believe that the Hassek impression was made by a Mesopotamian seal. As Behm-Blancke noted, the jar-carrier motive existed already in Syria in the Uruk period (Jebel Aruda 20)¹⁴⁵, and I would therefore be inclined to see the Hassek impression, and perhaps the Megiddo one also, as rare traces of an interesting style derived from Uruk glyptic in Syria of which no other examples are known. Given that the glyptic of Megiddo and of Hassek Höyük at this time is known, the style must have been made somewhere else. An important detail is given in the animal protome which seems to form the lion's tail on the Hassek sherd. Teissier (1987, 30-31) has studied this motive and has suggested that it was connected with the exchange of ideas between Egypt and Elam in predynastic times. It also occurs in the native stamp seal tradition and later became a prominent feature of the Byblos glyptic. This style was therefore perhaps made somewhere in north Syria under the influence of Uruk glyptic.

This is important because it implies an interest in narrative in glyptic composition. This was hardly true of any of the other early Syrian seals which are not in Uruk style; and the Uruk glyptic which was used as a model by the Aleppo Series and elsewhere was precisely that which had the least narrative in its scenes. Nonetheless modelled narrative Uruk glyptic did exist for a long time in Syria, and it is not surprising that it had some effect on local workshops.

Here we may notice the sherd which is said to be the earliest stratified cylinder seal impression from Byblos (Byblos II pl. 195:15715). Not much is preserved, but the design seems to involve a man in combat with a large animal, with a small man or animal at right angles in the upper field. There is a similar scene (including a small man at right angles in the upper field) on an impression from Hammam et Turkman, though in this case the lion is trampling the first man. Van Loon notes the comparison between his lion and the lions of the Byblos style¹⁴⁶. We may recall here Collon Yale I, the loop-bored clay seal from Nineveh, which could be understood as a contest between a man and a lion, again at right angles, and also the Susa design GMA 1701 (FI 70), for which see below. This seal has a large lion and a small human at right angles in the upper field. Another design possibly to be mentioned in this context is Ben-Tor IIC-3, from an EB IV context, but possibly much earlier¹⁴⁷. The suckling scene is regarded by Teissier (1987, 38-40) as a part of the early nexus of interchanges between Egypt and Iran via Syria, though it also existed later. The wide diameter in relation to its height of this seal may however support an early date.

2.3 Byblos style

The many unstratified sherds from Byblos are not listed here: see Dunand 1945 and Mazzoni 1992a: B54-B84, *passim*. For Palestine, see Ben-Tor 1978, Class II, pp. 69-75. Sherds believed to be stratified by Saghih (1983) are listed below:

Byblos: Dunand 1945, fig. 22f: 5072 (Impronte B57), impression on sherd (Saghih 1983, pl. XXXIII: KII = Second Dynasty, i.e. Amuq G/H transition).

Byblos I pl. 133: 5073 (Impronte B58), impression on sherd (Saghih 1983, pl. XXXIII: KII, as above).

Byblos II pl. 196: 11572 (Dunand 1945, fig. 21b, Impronte B71), impression on sherd (Saghih 1983, pl. XXXIII: KIII = Third - Fourth Dynasty, i.e. Amuq H).

Byblos: Byblos II pl. 196: 12613 (Dunand 1945, pl. VIIb, Impronte B73), impression on sherd (Saghih 1983, p. 77, pl. XXXIII: KIV = Fifth - Sixth Dynasty, i.e. Amuq I¹⁴⁸).

Byblos II pl. 196: 11298 (Dunand 1945, fig. 21d, Impronte B70), impression on sherd (Saghih 1983, pl. XXXIII: KIV = Fifth - Sixth Dynasty, i.e. Amuq I).

Byblos I pl. 133: 5684 (Dunand 1945, pl. VIIc, Impronte B59), impression on sherd.¹⁴⁹

Byblos II fig. 461, pl. 211: 11285 (Dunand 1945, pl. VIIf, Impronte B69), impression on sherd (Saghih 1983, pl. XXXIII: phase K-J, i.e. Amuq I-J).

Hama J5: Copenhagen 122, impression on sherd (Amuq I-J).

144 He says "early ED II" but this relies on the re-dating of Karg (1984), which is not accepted here, following Martin 1988, 133 n. 29.

145 Cf. at Uruk, GMA pl. 13bis D; GMA 1609.

146 Van Loon 1988, 661-2, pl. 200:3 = FI 66.

147 Though the sherd on which it was rolled is assigned to EB IV by Ben-Tor 1978, 90.

148 This is fairly exact. Period KIV ends before the middle of the Sixth Dynasty (Saghih 1983, 110) and there is an early Sixth Dynasty inscription from Ebla, Palace G, which marks the last phase of Amuq I.

149 Saghih (1983, 55) says it was found in a period KI building (i.e. EB I); but p. 90 suggests it may be intrusive in a deeper context.

Original seals from Byblos, all unstratified:

Byblos I pl. 126: 4995, ivory seal with lug.

Byblos I pl. 126: 5182 (Dunand 1945, pl. VII g, i), ivory seal with lug.

Byblos I pl. 126: 6595, seal with lug.

Byblos: Dunand 1945, pl. VIIe, ivory seal.

None of the earliest figurative sherd impressions conforms to the classic Byblos style, which probably therefore originated later. This style has two forms which appear to be contemporary. The first, and more common type, has rows of animals, often including a lion, and frequently has tête-bêche compositions (Dunand 1945, fig. 21). The earliest impression of this kind is Byblos 5073 which belongs to Saghieh's phase KII. This type is an obvious descendant of the EB I sherd impressions with tête-bêche animals as described above, but the animals are more mobile and the details are more carefully rendered than in the earlier group. The second type represents an elaboration of the first. A seal with no provenance (Ben-Tor IIBb-2) perfectly illustrates its character. The layout is in more than one register, and is often panelled with herringbone hatched bands. Extra figures such as the fish and the bird are added to the lions and animals. Above all, the tête-bêche principle is expanded by the use of animal protomes (Byblos 4995, 5072, 5182) and, in Ben-Tor IIBb-2, by a curious reverse attachment of animal parts. In short, decoration is dominant over meaning in this glyptic. The earliest impression here is Byblos 5072, which also comes from Saghieh's period KII. Although to some degree this type is clearly an elaboration of the first group, it also shows some awareness of the wider Syrian glyptic tradition. The hatched bands and firm outline of the figures are reminiscent of the Gable seals, and the lions and sense of narrative (Ben-Tor 1978, 56-7)¹⁵⁰ may owe something to the EB I narrative scenes, which although rare, do, as shown above, seem to include three cases (Megiddo, Hassek and Byblos) which are stratified earlier than the Byblos style¹⁵¹. The lugs on the actual seals indicate, moreover, some debt to the Aleppo Series, though the connection with Uruk glyptic is more to the modelled Uruk¹⁵² (which we saw above is linked to the narrative scenes) than to the common Uruk styles which were taken up by the Aleppo Series.

The scenario suggested here, that the Byblos style is a derivation of several EB I styles, depends on the dating. This is discussed by Ben-Tor (1978, 73-5). As he points out, it must be later than the Eneolithic material¹⁵³, but need not be earlier than the Early Dynastic glyptic of Byblos. Ben-Tor states that the sherds do not belong to datable pottery types, except for a metallic ware sherd which belongs to Palestinian EB II-III, i.e. in the scheme used here late Amuq G - Amuq I. Ben-Tor casts doubt on the provenances of the stratified sherds, including some which are counted as stratified above (following Saghieh), but he regards it as probable that some of the sherds do belong to Palestinian EB II, and this result is in accordance with Saghieh's phase KII. It is not necessary here to discuss at length the relationship between Palestinian EB II and the Second Dynasty in Egypt, only to note that we are dealing with a time later than the earliest Early Bronze Age but also earlier than the major Palestinian period "EB III". Ben-Tor found this situation confusing (1978, 104-5), because he counted the early sherds from Megiddo as part of the Byblos style. I have suggested above that although these sherds do show rows of animals and the tête-bêche principle, nonetheless they do not have any of the special stylistic features of the Byblos style and are indeed earlier. I suggested that the fact that we do not have such material from EB I in Syria or Lebanon may just be an accident of excavation. Now there is glyptic from Palestine which closely resembles the Byblos style (Ben-Tor IIA-1-3, IIBa-3, IIBb-1, IIBb-3, IIC-8, cf. fig. 21), but none of these pieces is stratified. The only stratified sherd from Palestine known to me which is clearly of Byblos style is Lapp 1989, no. 7 from Numeira, in a Palestinian EB III context. As Lapp (1989, 7) and Ben-Tor (1978, 79) have pointed out, there are two other pieces of evidence which suggest that the Byblos style continued until this time. The first is a sherd from Hama (Copenhagen 122), from J5, which represents the transition between Amuq I and Amuq J (Mazzoni 1985, 9). Ben-Tor (1978, 75-6) has cast some stylistic and contextual doubt on this sherd, and certainly the very long legs are not known at Byblos. The second is the well-known sealed jar from a Fifth Dynasty tomb at Giza in Egypt (Impronte B167), thus contemporary with Amuq I. It may be doubted whether this sherd is better compared to the Byblos style or to the EB III tête-bêche sherd impressions such as Copenhagen 119, but I agree with Ben-Tor that it is not likely that the Giza jar was very much older than the context in which it was deposited. Allowing some slippage there, we may propose that the

150 Though as Ben-Tor points out (1978, 71) the style does not include contests of the kind known in Mesopotamian glyptic both in the fourth and in the third millennium.

151 Compare also the attitude of the human on the EB I sherd Byblos 15715 and the classic Byblos sherd 11285 (Saghieh 1983, pl. XXXIII). The latter clearly belongs to the classic style because of the panelling with hatched bands; the former does not show (so far as is preserved) any of the specific features of the classic Byblos style.

152 Especially in the way in which the lions are drawn. Collon (1987, 24, no. 8) notes that the reverse attachment is known in a modelled style Uruk impression from Habuba Kabira.

153 I.e. no later than the beginning of the First Dynasty, cf. p. 52.

Byblos style continued, either in its classic form or perhaps into a stylistic transition with the EB III style which followed it, at least as late as early Amuq I.

So far as time is concerned, therefore, we may take it as established that the Byblos style existed throughout Amuq H, with some overlap into Amuq I and possibly into late Amuq G as well. As for space, both types of seal certainly existed at Byblos. The first type is also known in Palestine, and perhaps also at Hama. This southern and coastal distribution is the reason for the separate treatment given here from the Aleppo Series of inland North Syria. The second type, however, is only known at Byblos itself. Ben-Tor 1978, fig. 21 misleadingly suggests that it existed also in Palestine, but this depends on seal IIBb-2, which has no provenance. Lions, birds, hatched bands and some expansion of the layout (IIBb-3 = Parker 1949, no. 129, Beth Shan) are attested in Palestine, but not yet the full-blown elaborated style. With the exception of the last mentioned seal from Beth Shan, all of the known actual seals belong to the elaborated group and are made of ivory. It has long been maintained that the Byblos sherds must have been sealed with wooden seals (Ben-Tor 1978, 40). It may be that the elaborated style meant nothing more than wealth and high status, expressed in the more expensive ivory, and this is why actual examples of the plain style are not known.

It could further be maintained that all of the impressions in Byblos style from Palestine were actually made at Byblos and exported to the south¹⁵⁴. But then we have a rather interesting problem in the clear parallels which exist between the glyptic of Byblos and Elam. Amiet (1980, 43) and Ben-Tor (1978, 78) have noticed the parallel between Byblos and some impressions from Susa (GMA 594-600) which probably date about the same time (end of the Proto-Elamite period). In these impressions we see the *tête-bêche* principle (GMA 595) and a general tendency to fit the figures together which does not in itself, however, necessarily imply Syrian links since, as Amiet notes, it occurs at Ur (UE III 398). Ben-Tor is especially struck by the Susa sherd GMA 593, both because it is a sherd and because of a similarity to a figure in Byblos II pl. 196: 8553 (Impronte B64). These two sherds do not have anything else in common, though, and I would be inclined to date the Susa sherd much earlier (Late Uruk - EB I) because of the quadruple spiral¹⁵⁵. Parallels for the Susa figure can also be supplied in an archaic seal (Nuzi pl. 41F) and in a Brocade style seal (Collon 1987, 24, no. 59)¹⁵⁶. Therefore I think a connection in EB II could probably be denied and the similarities ascribed to parallel evolution (both countries adapting the Uruk inheritance to a more decorative role), were it not for GMA 1701 (Susa 1021) which shows exactly the same kind of reverse attachment as we saw in the classic Byblos style seal Ben-Tor IIBb-2¹⁵⁷. It also has a small man at right angles in the upper field, which we saw in the EB I narrative scenes – indeed one could propose that this design belongs with the EB I group rather than here. This is the best evidence for the survival in EB II of the link to the east which we know existed in the archaic period, and for which the Umm an-Nar impression (GMA 1728) provides some evidence in EB III. GMA 595 may also fit best in EB III. The combination of a layout in congruent forms with the *tête-bêche* principle occurs also in the Qoueq sherd Collon 1981, fig. 259¹⁵⁸ which may belong, together with most of the figurative sealed sherds from the region of Ebla, to EB III. GMA 596 can also plausibly be placed in EB III, on account of its similarity to an unpublished sherd from Hama (3F 68). So if GMA 593 and 1701 are EB I or earlier, and GMA 595-6 and 1728 are EB III, then there may have been no link between Susa and Syria in EB II; alternatively such a link may have existed then but the evidence from both countries at that time is so deficient that we cannot properly understand it.

If such a link did exist in EB II, then it might be proposed that the social distinction which I have already suggested obtained between the wooden (?) common animal file Byblos designs and the ivory elaborate ones, may have extended to the administration of two different trade routes. The common seals could have been used to regulate a trade in sealed jars to Palestine, an impoverished and low-status district, while the elaborate seals were used for communication with the high-status trade from Byblos to inner Syria and Elam, using an iconography and seal shape which explicitly preserved traits inherited from Uruk civilisation. But we do not possess impressions in this style from EB II contexts in Syria (very few of which have been excavated) which might confirm this speculation.

Here we may mention the Nineveh basket impressions Collon Yale 59-64 which show a fish and large *tête-bêche* lions in an angular style with internal hatching in the figures¹⁵⁹. Collon (1988, 10) suggested that they came from 15 feet below datum in the deep sounding and therefore date later than the EB I fired steatite impressions from 17-20 feet below datum. However one of them (Thompson and Mallowan 1933, pl. LXVI:15) is marked on the original publication at 17 feet, so a date in EB I is possible. Although not stylistically identical to GMA 1701, and even less

154 Irregularities in the trade networks could then explain Ben-Tor's problem of the absence of classic Byblos style from Megiddo (1978, 104-5).

155 Though this spiral is not impossible in EB III as is shown by the Brak impression 208.

156 GMA 594 resembles Ash 715 etc. and may therefore date to the Jemdet Nasr period.

157 Collon 1987, 24, no. 70; see also Amiet 1972, 142, which notes the same thing in an ED I-II seal from Tell Agrab: Diyala 824.

158 Tell Aar: Impronte B119.

159 Thompson and Mallowan 1933, pl. LXVI:8. Cf. Mari Ishtar pl. 67:546??

so to the elaborate Byblos seals¹⁶⁰, I feel nonetheless that they belong in this context and are the product of trade between the Levant and Assyria, either in EB I with the Hammam et-Turkman seal, or in EB II with the Byblos glyptic. Further evidence for links between Syria and the east at this time is provided by an ED I sherd impression from Tell Sabra (Tunca 1987, pl. 107) in the Hamrin region of eastern Iraq. The humans with raised spread hands arranged tête-bêche are so much what we might expect in Syria that it may be suggested that the pot was sealed with a cylinder which had been imported from the west.

3. The native tradition in the EB III-IV period

This material is known primarily in the Ebla and Hama sherds, which have recently been studied by Mazzone (1984, 1992a, 1993, n.d.). Very little evidence is available for late Amuq H and early I sealed sherds, and what we have is nearly all geometric¹⁶¹. Given the strong EB I figurative tradition in the Aleppo region, and the even stronger figurative Byblos style of EB II, which (as shown above) probably continued into early EB III, this should not be regarded as significant. The figurative styles of EB III-IV are clearly rooted in the ancient tradition and there must have been stylistic continuity.

Therefore we should begin by considering the material found in Palace G (Ebla IIB1) and in other Amuq I contexts such as the lower part of Hama J. Much of the material considered in this section is stratified in Amuq J contexts, but I can see no stylistic innovations. While the Early Dynastic style had a strong effect on Syrian glyptic, giving rise to several hybrid styles which are considered elsewhere, the Akkadian style had no such effect¹⁶². This may indicate that glyptic was moribund in the west at that time: either no seals were made (which would imply a major deterioration of the economic system), or seals were only made in imitation of the past.

3.1 Hatched panels

- Nineveh: Collon Yale 49, impression (out of context).
- Tell Halaf: Hrouda 1962, pl. 23:1, seal (no context).
- Jigan: Ii and Kawamata 1984-5, fig. 26: 5, seal from Grave 16 (ED IIIA).
- Alalakh: Collon 1982a, no. 25, seal, surface.
- Byblos I pl. 126:3727, seal.
- Byblos II pl. 194:18772, seal.
- Hama J4: Impronte B98, sherd (Amuq J).
- Hama J4: Impronte B99, sherd (Amuq J).

The hatched panel design is defined as a field divided into a number of panels, each of which is independently hatched. This definition is not entirely satisfactory, however, because it overlaps with some other scene types. The material listed above falls into two groups, a clear series in the west in Amuq J, and a much less clear series in the Ninevite V area. The Nineveh impression could be understood, following Collon, as a relative of the "temple" design (e.g. Diyala 878), or, as stated above, as a kind of chevron pattern. Similar doubts could apply to some ED I material from the Hamrin¹⁶³. The seal from Tell Halaf may be a simple lattice design which was later recut. But the seal from Tell Jigan is a clear example of the pattern which could not easily be placed under any other heading. It comes from Grave 16, which I suggested (p. 44) belongs to a time equivalent to ED IIIA. But given the evidence from Nineveh and the Hamrin, and the lack of comparable material from other ED III sites in eastern Syria, it may be best to see this seal as a survival from the Ninevite V period.

A second group is typified by the two impressions from Hama¹⁶⁴ where the panels are arranged with much less of a sense of order than in the Jigan seal. Byblos 18772 and some sherds from Palestine¹⁶⁵ may be related. This group, on the evidence of Hama, may belong to Amuq J. More difficult are Collon 1982a, no. 25 and Byblos 3727, which have western provenances combined with a design more like the Jigan seal or even, in the case of the Alalakh

160 The spiky claws, though unlike the Byblos and Susa glyptic, resemble the EB I material listed by Teissier 1987, 44-46.

161 Ebla: Mazzone 1993: A49, Mazzone 1994: A53 (said to be like Mazzone 1993: A45); Hama: Impronte B114; Tarsus "EB II": Tarsus II fig. 396:4; Apamea: FI 46; Halawa II Abb. 69: 5-7 (could be redeposited from earlier). Impronte B163-4 from the Keban region may be exceptions.

162 Unlike in Elam: Amiet 1979, 201.

163 Gubba 18, 101; Tell Maddhur: M. Roaf, pers. comm.

164 Also two more Hama sherds, unpublished, observed by me in the Aleppo Museum.

165 Ben-Tor 1978, 20-23 type IF, none dated.

seal, like the "temple" of the archaic Mesopotamian seals like Diyala 878¹⁶⁶. I am inclined not to assign this material to an early date because of its similarity to another series of designs with hatched panels, discussed here below as the rosette pattern series. These are sherds from Ebla and Hama of the EB III-IV series (Impronte B106-7, etc). Here the design is very regular and rectilinear¹⁶⁷ and the series may best be seen as a development of the regular swirl pattern group, which I suggested above should belong to EB II. The sherds of this kind from Palestine (Ben-Tor 1978, type IE) are quite consistent and they do not all include swirls; unfortunately only two of them (Ben-Tor IE-6,7 with swirls) have a datable context, in Palestinian EB III.

In summary, therefore, designs with hatched panels occur occasionally in sites in eastern Iraq and the Ninevite V area in the earlier third millennium, but are too rare for their distribution to be understood. In the west, there is a type which belongs to EB IV at Hama with a chaotic arrangement of panels, which may be related to a more rectilinear type of design on western sherds, in which an earlier series with simple compositions and swirl patterns may have been replaced by a later type with more complex compositions and rosettes.

3.2 Rosette pattern

3.2.1 Simple composition

Mari Ishtar pl. 75:2917, seal.

Chuera: Orthmann 1986b, 23 fig. 8, impression (Level 4).

Ebla: Impronte A15, sherd (Palace G).

Ebla: Impronte A7, sherd (surface).

Hama J4: Impronte B96, sherd (Amuq J), with snake(?), fish and plant.

Hama J4-3: Impronte B95, sherd (Amuq J).

Hama J3: Impronte B105 = Ingholt 1940, pl. XIV:6, sherd from (Amuq J), with animal.

Hama, unpublished sherd 3C603 now in Aleppo showing a large rosette and a snake.

Tarsus II fig. 398:1, impression from "EB III" (Amuq J).

Troy II: FI 49, seal.

Bought near Carchemish: Ash 760, seal, with human and animals.

Ash 776, perhaps from Tell Basher, seal, with animal.

Selenkahiya: Van Loon 1968, 31 (not illustrated): 38 jar [or peg?] sealings from the Burned Building, Phase 3, showing a design with snakes, a scorpion and a "butterfly" resembling a quadruple spiral.

3.2.2 Complex geometric compositions, often in panels

Apamea: FI 46, sherd (Amuq I).

Ebla: Impronte A35, sherd from Palace G.

Hama J6: Impronte B92, sherd.

Hama: Impronte B88, 106, 107, sherds sealed by the same seal (earliest is Hama J5).

Hama J5: Impronte B103, sherd.

Hama J5: Hama 3F 115, unpublished, sherd, now in Copenhagen.

Ebla: Impronte A4, sherd (surface).

Designs based on the rosette are often ascribed to ED I, following Moortgat 1967, 43, quoting a seal from Khafaje (Diyala 256) which Frankfort dated to ED I, and related material from the seal-impression strata at Ur¹⁶⁸. The Khafaje seal, however, comes from the Temple Oval, which belongs to the ED II or IIIa period, and most of the material from Chuera was probably deposited in ED III. It is quite true that the rosette has a much earlier history, going back to the Uruk period¹⁶⁹; but we have to look at its distribution on its own merits. The group is defined by the presence of the rosette as the sole or dominant element in the design: this is not entirely satisfactory but it does exclude all the material from the fourth millennium and later in which the rosette appears as one of the minor symbols.

¹⁶⁶ Collon 1982a, 25, also citing seals from Susa.

¹⁶⁷ Except for the unpublished sherd Hama 3F 115, where apart from the rosette there is a geometric area very similar to the "hatched panel" type.

¹⁶⁸ Cf. Amiet 1985, 9.

¹⁶⁹ Especially as a floral motive, cf. FI 6. Amiet notes two interesting archaic seals where the Uruk vase is duplicated to form a rosette: 1963, 67 n. 32, pl. V:5 and BM I pl. 4j. See also Moortgat-Correns 1994.

The rosette is an important symbol in the fired steatite style seals, usually with a hatched ring round it but also sometimes surrounded by a plain circle. This series (e.g. Diyala 87, 88, 91, 162) is not discussed in this section and can consistently be distinguished from the material treated here by the presence of the simple or hatched circle around the rosette. Our group here, which is not part of the fired steatite style, either has a wavy line round the rosette or no encircling line at all¹⁷⁰.

The dates for our group are remarkably consistent in EB III-IV. The most significant pieces are the ones whose stratification points to a date close to the end of the ED III period or a little later, i.e. the sherds from Palace G at Ebla, the seal from the temple of Ishtar at Mari (Amiet 1985a, 476), and the impressions from Level 3 at Tell Selenkahiya which is generally contemporary with Ebla Palace G, but which also produced an Akkadian seal-impression (Van Loon 1979, fig. 21). Diyala 518¹⁷¹ and the Tarsus impression may speak for a continuation of the type after this, and Diyala 256 is significant in providing a date not later than ED IIIA for the beginning of the series, but no chronological distinctions can be made within the group.

There are two main types of design. The Mari, Tarsus and Tell Asmar designs have nothing but large rosettes. In pieces from Ebla, Hama and Troy a single large rosette is joined by other simple geometric (or possibly in the incomplete cases, figurative) forms. These designs cannot be separated from the seals from Hama and probably Selenkahiya where the large rosette is accompanied by animals or, more distinctively, with snakes and scorpions. The coherence of the whole group is demonstrated by the consistency with which the outer rim of the rosette is treated. Sometimes a wavy line is drawn around the rosette¹⁷²; at other times the gaps between the leaves are filled with small wedges¹⁷³, or the leaves are drawn with two separate lines without any external surround¹⁷⁴. This consistency then gives a reason to assign the incomplete Chuera impression Orthmann 1986b, fig. 8, which has a wavy line, to this series. It also gives reason for a strong link with the "Chuera Style" of eastern Syria (see p. 114). The type thus clearly belongs to the west – though not, interestingly enough, to Palestine where the rosette does not occur once in Ben-Tor's corpus – throughout the EB III-IV period, and probably, on the strength of the two impressions from Chuera and the Mari seal, to eastern Syria as well. The two seals from the Diyala region may be imports from Syria. GMA 1728, a sherd from Umm an-Nar down the Persian Gulf, probably belongs here also¹⁷⁵.

A second series is more circumscribed in its distribution. It is typified by a set of sherds from Hama in which the surface of the seal is divided into rectilinear panels in a manner similar to the impressions of the "hatched panels" group described above. One of the panels is filled by a rosette. The designs are well composed and balanced and the type is attested also on sherds from Apamea and Ebla. This type was only used on sherds in the valley of the Orontes and seems to be confined to EB III so far as we can see at present. The Palestinian type Ben-Tor IE may be related, though it does not include rosettes¹⁷⁶.

3.3 Syrian Animals style

Typical:

Chuera 1985, 38 Abb. 13: impression, "West-Tempel" (now called Palace F), on pavement (ED III?)¹⁷⁷.

Byblos I pl. 125: 3126, seal, surface.

Ash 767, seal, bought Aleppo.

Ash 768, seal, bought Aleppo.

Ash 770, seal, bought north Syria?

Ash 772, seal, bought Aleppo.

Ash 773, seal, bought near Carchemish.

Related:

Chuera: unpublished seal excavated by Lauffray (cf. Kühne 1976, 31), design kindly shown to me by Dr. Moortgat-Correns.

Hamam: Ash 766 (Woolley 1914, pl. 27B), bone seal, said to come from a tomb which probably belongs to Amuq I¹⁷⁸.

170 Hama 3F 115 is an exception.

171 Ur III context: Gibson 1982, 534.

172 E.g. Mari: geometric; Impronte B105: figurative.

173 E.g. Impronte A7: geometric(?); Diyala 256, Chuera 1964, Abb. 29: figurative.

174 E.g. Diyala 518: geometric; Ash 724: figurative.

175 Cf. Amiet 1985b, 9; Potts 1990, 113.

176 For Ben Tor IE-11, see Beck 1976, no. 6.

177 See above, p. 43, for the date of Palace F. Moortgat-Correns 1988b, 34 n. 36, says the pottery is the same as that found under the Mitanni-Bau, which was regarded as standard Chuera material. So an ED III date would fit both this statement and Orthmann's latest position (1994, 122).

178 Woolley 1914, pl. XXII, shows tripod jars and red-banded jars from Hamam, types considered by Dornemann 1979, 122 to be earlier than

Mari Ishtar pl. 67: 368, seal, Cour 15.
 Mari Ishtar pl. 67: 576, seal, from s. of temple.
 Copenhagen 112, seal, bought Hama.
 Ash 774, seal, bought Aleppo.
 Ash 775, seal, bought Aleppo.

This style was identified by Amiet (1963, 74-5, Group 4). It is known mainly in actual seals, most of which have no provenance; but it is clearly closely related to several of the groups of EB III sherd impressions discussed here, especially the tête-bêche group and the rosette scenes with figures. It may be dated to EB III, with a distribution along the Euphrates. The Ashmolean catalogue shows the range of designs, usually a man with two animals and a few fillers such as a bird, in a simple arrangement. The stylisation with triangular segments of bodies and internal hatching is distinctive¹⁷⁹. Occasionally the tête-bêche principle is employed (Ash 767). The two Mari seals represent further variants. The Chuera impression and the Byblos seal are on the contrary typical.

Amiet listed further examples¹⁸⁰, some of which have rather different scenes of ploughing (Ash 774) or music (Ash 775, Brett 100), together with a less specific, but still clearly related cutting style (most conspicuous in the forms of the human heads). Such seals without the hatched animal bodies can become very close to designs in the EB I Hassek style¹⁸¹ and in contemporary sherd impressions of the tête-bêche group (see below), as is illustrated by Mazzoni 1992a, Tav. XLV-XLVI. Connections can also be made to the Chuera Style, which combines elements of the Syrian Animals style with Early Dynastic traits¹⁸². This indicates both that the Syrian Animals style is a major component of the native tradition of Syrian glyptic in EB III, and also that it was open to some foreign influences. The music scene, for example, doubtless comes from ED glyptic, perhaps via the Chuera or Brak styles; and so may the chariot of Yale 363. The lion may also come from ED glyptic as it is rare in native Syrian seals¹⁸³, except for the Byblos lions which are not stylistically related. If the lion did come from Mesopotamia, it may have done so in ED II, as we see none of the rampant and crossing poses favoured in ED III.

3.4 Tête-bêche

Precursor(?): Jigan: Ii and Kawamata 1984, fig. 31: 11, impression, later Ninevite V.
 Hama J6: Copenhagen 119 (Impronte B109), sherd (Amuq I).
 Hama J5: Impronte B108, sherd (Amuq I/J trans.).
 Ebla IIB2: Impronte A3, sherd (Amuq J).
 Ebla: Impronte A22, sherd, surface.
 Qoueiq: Collon 1981, fig. 259 upper (Impronte B119), sherd (Tell Aar, surface).
 Selenkahiya: FI 133, seal, phase IV (Amuq J)
 Selenkahiya: Van Loon 1973, p. 148, broken terracotta figure of an enthroned person with seal impression featuring "a praying figure before an altar above which moon and sun are visible. Behind the altar there are two quadrupeds, one represented upside down"; unfortunately not illustrated; middle-upper levels (Amuq J?).
 Bought at Hama: Copenhagen 113, seal.
 Ash 774, seal, bought Aleppo.

The Hama sherd Copenhagen 119 shows clearly the derivation of the type from the Byblos style. The simple register between two horizontal hatched bands is strongly reminiscent of the Byblos sherd Dunand 1945, fig. 22b (Impronte B83¹⁸⁴), but the characteristic change in the tête-bêche principle between having the animals next to each other, the usual scheme at Byblos, and one above the other, as occurs in this later material, has been made. The general appearance is also similar to the late Byblos style sherd from Giza, Impronte B167. Whereas the Byblos style was often content to show the animals on their own, this group prefers to include also other figures, sometimes with a hint of narrative. Ravn (1960, 98) describes these in Copenhagen 119 as a walking man, a rampant goat and a

the Amuq J tomb at Tell Hadidi.

179 For this reason I include here the seal found by Lauffray at Tell Chuera, though its appearance is not typical. Dr Moortgat-Correns informed me that it resembles CANES 1080, and Marcopoli 329 is also similar.

180 Ash 771; CANES 1083, almost identical to the Byblos seal; Brussels II p. 134-5: 849, 1391 (GMA pl. 85bis C) with man with raised arms; see also Mazzoni (1992a, Tav. 44-46): Moore 188, Yale 214, 358, 359, 361, 362, 363.

181 E.g. Copenhagen 112 (see p. 65 n. 44).

182 See p. 114. Possible hybrid seals are Yale 360, Strommenger 1973, Abb. 26 and Impronte Tav. XLIX:6.

183 A human and a lion are shown on the sherd impression from "Tell Mak" near Tell Brak (Impronte B151). I have been unable to locate this object, but there is a photo of a drawing of it in the British Museum's copy of Mallowan's unpublished Khabur survey (cf. Mallowan 1936, 2; Frankfort 1939, 231).

184 NB misnumbered in Mazzoni 1992a, Tav. XXXI.

squatting animal (monkey?), but having seen the original, I think a scorpion and a large dagger (see p. 112) with the man may be more likely. The Ebla sherd *Impronte* A3, with its herringbone hatched band and standing man, shares several traits with the Hama design. A standing man may also occur on the Qoueiq sherd *Impronte* B119 and on the second Hama sherd, *Impronte* B108¹⁸⁵.

The Ebla sherd A22, with its two registers of animals, is rather different and is most reminiscent, if anything, of the ED I sherd impression Tunca 1987, pl. 107 from Tell Sabra in the Hamrin. The Sabra sherd fits well with EB III pieces, especially in the *tête-bêche* humans, which are so similar to FI 133¹⁸⁶, as does Diyala 233 from an ED I context. Another case is the impression from Jigan, Ii and Kawamata 1984, fig. 31: 11, which comes from a later Ninevite V (EB II) stratum. None of these designs belongs to the Byblos style, so they must represent an independent line of derivation from the earliest *tête-bêche* designs in EB I, before the beginning of the Byblos style, and they show the strong continuity between EB I and EB III along this line¹⁸⁷. The markedly eastern distribution suggests that the style may have been located somewhere on the Euphrates or one of its tributaries, but one cannot guess where. The three-pronged feet (Teissier 1987, 45) of the Sabra design and Ash 723 are a mark of early glyptic, and may recall the *tête-bêche* lions of Nineveh mentioned above (Collon Yale 59-64) which I suggested might be connected both with a trade between Byblos and Iran in EB I-II, and the EB I narrative scenes which preceded the Byblos style and may have helped to inspire it.

The two Selenkahiya designs suggest, in their complexity and narrative detail, a local sub-style in Amuq J, derived from the main Amuq I. The individual items must have had some specific meaning, perhaps in both cases referring to some ceremony. The scenes may be related to the "EB banquet" series (see p. 121).

Copenhagen 113 and Ash 774 are actual seals which can be separated neither from the sherd designs nor from the Syrian Animals style (see p. 96). Both were acquired in the Ebla-Hama region which was central for the *tête-bêche* sherds; other unprovenanced examples are Yale 360 and GMA 1739. The *tête-bêche* animals are very similar to our sherds, but the narrow heads and other details are very close to Syrian Animals scenes such as Copenhagen 112. I have included them here because the animals do not have hatched bodies, or triangular segments, as in classic Syrian Animals scenes; but Ash 767, a *tête-bêche* scene which does have these features, shows how artificial this distinction is. The double tassel(?) of Copenhagen 113 is a remarkable feature which connects this seal to material from Brak (484, 485) and also to sherds of the Palestinian EB III¹⁸⁸.

3.5 "Flowing" style

- Ebla IIB1: *Impronte* A17, sherd (Amuq I).
- Ebla IIB1: *Impronte* A25, sherd (Amuq I).
- Ebla IIB1: *Impronte* A29, sherd (Amuq I).
- Tell Abu Danne: Damascus 100, sherd.
- Tell Abu Danne: Damascus 101, sherd ("EB IV").
- Ugarit: Amiet 1992, no. 3, seal (MB context).
- Ugarit: Amiet 1992, no. 2, seal (late context).
- Hama, unpublished sherd (3E 343).
- Tarsus II fig. 397:5 (*Impronte* B137), sherd ("EB III").

It is questionable whether this small group can be regarded as a style. I have defined it by the soft flowing style of engraving, with the juxtaposition of many small fat geometric or semi-geometric forms. There is no consistency of iconography such as we would expect in a style, and the connections seem to go in many ways. Amiet 1992 no. 3 is reminiscent of some of the *tête-bêche* sherd designs such as the Qoueiq sherd, *Impronte* B119, but the individual forms do not seem to resolve into recognisable figures. The same may be true of the fragmentary impressions *Impronte* A25, A29¹⁸⁹, Damascus 100, Ben-Tor IIC-4,5 and the Tarsus sherd. In all these designs one can almost but not quite catch the shapes of animals or other figures¹⁹⁰. The same soft stylisation and near-figuration occurs on the second Ugarit seal¹⁹¹, which at first glance, however, strongly resembles a Brak Style seal with its two registers

185 Cf. also Yale 360.

186 Or even Mari Ishtar pl. 67: 519, unless it is OB?. Ash 723 (Mazzoni 1992a, Tav. XLIV:1), though unprovenanced, has EB I features (Buchanan 1966, 132).

187 Cf. p. 65 n. 44.

188 Ben-Tor 1978, IIC-3, 4; see now Ben-Tor 1992b for further impressions. I owe the latter reference to Pirhiya Beck.

189 Mazzoni 1992a, 73: "animalistico (?)".

190 Ben-Tor (1978, 69), following Dunand, suggests that this is true also of the Eneolithic stamp impressions from Byblos, which look geometric to me.

191 Amiet 1992, no. 2, p. 10 "peut-être quadrupèdes stylisés"; also perhaps Damascus 101?

divided by a herringbone band. Copenhagen 115 shows that an example of this style was known as far west as Hama, though its centre must have been in the Khabur. Related both in composition and in engraving style to this Ugarit seal is the Ebla impression *Impronte* A17 which, however, alone in this group, includes recognisable figures. Mazzoni (1984, 24-5; 1992a, Tav. XLII) has traced the origin of the spread-legged figure in the archaic period and down to ED I, but there is no satisfactory way of connecting this material with the EB III Ebla sherd¹⁹². Mazzoni suggests that the figure may have survived longest in Iran, so one might speculate a link along the Susa-Syria trade route; certainly it was well-established in the Middle Bronze Age glyptic of Syria (Mazzoni 1992a, Tav. XLII: 5-8).

These designs may rather come from the North Syrian coast, north and west of Ebla, an area from which at present we have little information. This region may not have had a strong tradition of its own and these seals may be the result of local workshops ignorantly imitating seals of various styles which had come into their possession.

3.6 Humans

- Hama J6: *Impronte* B91, sherd (Amuq I).
- Hama J5: Copenhagen 121 (*Impronte* B87), sherd (Amuq I-J, trans.).
- Hama J4-3: *Impronte* B100, sherd (Amuq J).
- Ebla IIB1: *Impronte* A31, sherd (Amuq I).
- Ebla: *Impronte* A39, sherd (late context).
- Ebla: *Impronte* A9, sherd (out of context).
- Ebla: *Impronte* A32, sherd (out of context).
- Byblos II pl. 196:8553 (*Impronte* B64), sherd (MB context).
- Ugarit: Courtois 1962, 430-2 fig. 20, 21H (*Impronte* B125), combed ware sherd.

To judge from the tête-bêche animals previously studied, the earliest of these sherds with humans is probably the Byblos piece whose hatched borders are comparable to the Giza sherd *Impronte* B167 which I suggested might represent the end of the Byblos tradition in early Amuq I. *Impronte* A9 and a sherd from Palestine (Ben-Tor IIIC-5) are perhaps comparable. In the last piece the humans raise their hands and this is the case also in the Hama sherds *Impronte* B87, 100¹⁹³. *Impronte* A31 and A39 seem to show humans in association with geometric strips, but the nature of their designs is hard to see. In *Impronte* A32 it looks more possible that there was a narrative scene, but the design is incomplete. It might have resembled some of the sherds from eastern Syria such as Parayre 1990, no. 4. The last Hama sherd *Impronte* B91 is very strange, having apparently a man with wings or rays rising from his arms. The style of the Ugarit sherd is comparable¹⁹⁴.

These designs have a varying degree of realism, from semi-geometric designs such as the one last mentioned, to decorative friezes like Copenhagen 121, and occasionally some hints of narrative. The origin of cylinder seals showing rows of humans may be very ancient, if I am right in seeing the hoard of seals from Nuzi which includes Nuzi pl. 41E as an undisturbed archaic collection¹⁹⁵; but no continuous tradition can be traced. Rows of standing humans were a standard Uruk subject which was not, however, taken up by the Aleppo Series; and with the exception of the Tell Sabra impression mentioned above we have seen humans only individually, in narrative contexts. Therefore either these EB III-IV scenes are derived from some tradition of which no trace has survived, or they were invented as a part of the development of the Byblos inheritance which took place, so far as one can see, in early Amuq I. Some of them, especially the more frieze-like ones, have a certain resemblance to Ben-Tor's scene IIB, but I propose to follow him¹⁹⁶ in regarding this as a variant of Amiet's Syrian Ritual which does not occur among the Ebla and Hama sherds. Humans are almost entirely absent from the early glyptic of Nineveh (Collon 1988, 13) and Byblos, and are very rare in the common ED I styles of the east, Brocade and fired steatite. I see no trace of ED II-III influence in any of this material, and it is therefore a matter of some surprise that the idea should suddenly have become so popular in the native tradition. The best explanation may be that although no direct link can be made with the Syrian Ritual, except for the raised arms of some of the figures (because unlike in the Palestinian sherds the structure is missing), nonetheless that ritual was important all over Syria in EB III, to be expressed in different regions in varying ways in styles more or less independent of Mesopotamian influence.

192 Cf. Marcopoli 334. For the excised triangles, cf. pp. 79f.

193 Also an unpublished sherd from Hama 3E 742; cf. Guimet 3.

194 Ben-Tor 1978, 105, suggests that the Ugarit sherd may be an [EB III] import from Palestine.

195 Cf. p. 56 and the Chagar Bazar seal, allegedly from an incredibly early context, 518.

196 Ben-Tor 1978, 80, fig. 22, cf. Mazzoni 1984, 23.

The raised arms were clearly crucial to the Ritual and have something of an early history in the west: they occur in the earliest Byblos cylinder impression *Impronte* B80, and in a sherd impression from Alalakh, Woolley 1955, pl. 108g, which is not itself dated but which could be as early as EB I (see p. 89), and in the Hassek group (Behm-Blancke 1981, Taf. 12: 1,2)¹⁹⁷. They occur also in EB III in the stick-figures group (see below) and in the Syrian Animals seals¹⁹⁸, in both of which they are found in pastoral scenes as in the Hassek group long before. One may therefore propose that the raised arms were a symbol of one of the central concerns of society throughout the Early Bronze Age, perhaps related to the herding of flocks. We have seen in the Syrian Animals, tête-bêche and row of humans designs a close link between EB I and EB III which is not visible in any identifiable EB II group. This may be because of a shortage of evidence in the region of western inland Syria which is the most likely zone of transmission¹⁹⁹.

3.7 Clay seals and other crude styles

3.7.1 EB I-II crude seals

Hassek Höyük: Behm-Blancke 1981, Taf. 11:5, terracotta seal (EB I).

Hassek Höyük: Behm-Blancke 1981, Taf. 11:6, terracotta seal (EB I).

Hassek Höyük: Behm-Blancke 1984, Taf. 12:3, terracotta seal (EB I).

Not surprisingly, the crudest seals have received little attention in the literature: they would never be bought by collectors, and we may speculate how many excavated ones have been published. Al-Gailani Werr (1988) has given us our best guide to this material and several of her examples²⁰⁰ are quite comparable to these three seals from Hassek in their aimless designs and extensive use of dots. There is no reason to see any connection between the various sources, especially as the Hassek seals are stratified earlier than the eastern pieces cited by al-Gailani Werr. They therefore cast doubt on the conclusion which followed naturally from al-Gailani Werr's collection, that the many unstratified seals of this kind from Susa probably date to the later third millennium.

3.7.2 Stick-figures

Precursor: Hassek Höyük: Behm-Blancke 1984, Taf. 12:2, terracotta seal (EB I).

Main group:

Han Ibrahim Şah VIII: Ertem 1974, pl. 62:1-2 (*Impronte* B163), sherd (EB IIIA)²⁰¹.

Chuera: Orthmann 1986b, 56 Abb. 34: impression on clay strip, lower city level 2a (early Akkadian?)²⁰².

Alaca Höyük: Guimet 128 (Bittel 1939-41, Abb. 3), seal.

Assur: VR 777, terracotta seal.

Byblos II pl. 193: 11475, seal.

Related:

Chuera: unpublished seal, kindly shown to me by Dr Moortgat-Correns, from the Lauffray excavations, perhaps in the Häuser (cf. Kühne 1976, 31), therefore probably ED III.

Samsat: Moortgat-Correns 1970, Abb. 1, terracotta seal.

Byblos II pl. 196: 7024 (*Impronte* B62), sherd, surface.

Assur: VR 778 (Ishtar F, Akkadian period?).

The designs listed under "main group" have certain features in common: a rectilinear coarse engraving; animals at right angles to the usual orientation; and compositions including humans, sometimes with raised arms, and animals similar to the Syrian Animals group. We may notice also the scorpion in the Chuera impression: apart from the archaic tradition of seals with scorpions, which may have persisted in the Ninevite V period (see p. 56), the scorpion

197 For the date, cf. also the Tell Sabra impression Tunca 1987, pl. 107, which I think must have come from the west.

198 E.g. Ash 772, GMA pl. 85bis C.

199 There is very little stratified EB II glyptic from the west, and most of what does exist is either of EB I type or geometric, cf. apart from the items cited p. 94 n. 161 and the Jerablus Tahtani sherd (p. 117): Amuq fig. 297; Copenhagen 115, 117; Byblos I pl. 126:3856, II pl. 196:11572; FI 14; *Impronte* B162-164; Van Loon 1978, pl. 135C.

200 Nos. 2, 3, 8, 9, 21, 95-98, from the Diyala, Hamrin and Susa regions.

201 Conti 1993, 378, 384-5: Period 2B, equivalent to Tarsus "EB II" and later Ninevite V at Chagar Bazar (Karababa Painted Ware), i.e. not later than early Amuq I.

202 Orthmann 1986a, 69 says these strata are later than the material studied by Kühne 1976; they may run into the Akkadian period.

probably had a place in the native western Syrian glyptic tradition from EB I (Ash 721). Animals at right angles existed in the seals *Impronte* B143 (Mersin) and Nuzi pl. 41C which may be archaic. We find them also in clay seals from Suleimeh and the Diyala region²⁰³. A direct descent should not be assumed from any of this material, but it does demonstrate that degradations of this kind are always liable to occur, and the subjects indicate a derivation from inland western Syria, i.e. not the tradition of Byblos, which lacks the scorpion and has little interest in humans, or from the Ninevite V area, where the EB I-II glyptic was largely geometric.

Similar designs, with less specific features, are known from various places and times. A clay seal from Hassek Höyük (Behm-Blancke 1984, Taf. 12:2) is especially interesting because of its early date. The Byblos sherd *Impronte* B62 has a quite a similar scene to the Mersin sherd, which I suggest is much older, but the fluid engraving style is unusual.

The Samsat seal is the most interesting in this group. Moortgat-Correns compared designs from Brak and Khafaje²⁰⁴, which both have rows of scorpions in an upper register. Mazzoni 1992a, Tav. XLV:7 (Moore 188) is similar to the Khafaje seal, but the figures look more Syrian. The engraving of the main design is not similar to any of these, but a date in EB III would certainly make sense for the Samsat seal. A similarity in the main figures with the EB I Hassek seal is more convincing, but that seal lacks the scorpions. Nonetheless I prefer the idea of an EB I date. Ash 721 demonstrates the existence of the scorpion in the Hassek style, and shows also a combination of a smaller animal above a larger one which is quite similar to the Samsat seal²⁰⁵. This combination exists also in the Megiddo sherd Ben-Tor IIC-2. This sherd has no date itself, but Ben-Tor assigns it to EB I (1978, 90) and we may note in particular the three-pronged tail in both the Samsat and the Megiddo designs, whose early affiliations have been noted by Teissier (1987, 44-5). I therefore favour the idea that the Samsat seal is an imitation of the Hassek style in clay, the medium causing the forms to become straighter and more linear.

3.7.3 Plant-like hatching

Apamea: Collon and Zaqzouq 1972, 73 fig. 7: 1353 (*Impronte* B116), sherd (Amuq I).

Ebla: *Impronte* A43, sherd (Palace G).

Ebla: *Impronte* A44, sherd (Palace G).

Ebla: Mazzoni 1993: A48, sherd.

Sendschirli V, Taf. 39h, seal.

Sherds from western Syria indicate that this type belongs to EB III, and this date is supported by Suleimeh 23 from Level VIII, which is earlier than the strata at that site which yielded abundant Akkadian glyptic. A similar branch-like motive, though combined with animals and a human, occurs in Diyala 571 from an Early Akkadian level (Tell Asmar Houses Va). Suleimeh 24 comes from an Akkadian level but it might be a survival. As has been pointed out by al-Gailani Werr (1988, 2-3) and Mazzoni (1993, 411-2) this type of seal is normally made of clay and is common among the material from Susa. Both authors stress the distribution of the type along the foot of the mountains. Al-Gailani Werr suggests that it may have originated at Susa, but she was writing before the publication of the Ebla material. Mazzoni notes the similarity of this distribution to that of the "Brocade style" seals²⁰⁶ and suggests that the seals from Susa and Ebla resemble each other more because they are both what happens when widespread motives are copied by scratching in clay, than because of any direct contact. Nonetheless the Provincial Elamite style and the EB III sherd styles give evidence for contact between Susa and Syria at this time (see pp. 93, 96, 146-147) so a link is not impossible.

3.7.4 Various crude seals: linear

Hama J5: Copenhagen 123 (*Impronte* B110), sherd. Linear design.

Ebla: *Impronte* A11, sherd (surface). Rectilinear design.

Ebla IIB1: *Impronte* A18, sherd (Amuq I). Strokes at right angles.

Ebla IIB2: *Impronte* A10, sherd (Amuq J). Hatched box and animal?

Ebla IIB1: *Impronte* A41, sherd (Amuq I). Man with raised arms and animals.

Tell Halaf: Hrouda 1962, Taf. 23:3, seal. Man with raised arms, animal; small figure in frame.

203 Al-Gailani Werr 1988, no. 1, 2, 10, 12: Diyala 262, 295, 317, Suleimeh 23, 24. The contexts are ED II - Akkadian.

204 485: belonging to the EB III tête-bêche group; Diyala 259: ED II or early III.

205 Cf. Yale 364.

3.7.5 Various crude seals: solid bodies

Amuq fig. 381:1, seal (out of context). Animal row.

Hama J5: Fugmann 1958, fig. 74 bottom, seal (3A737). Animal row.

Ash 728, seal, bt. Aleppo. Animal row.

Alalakh: Collon 1982a, no. 5 (MB context). Human with raised arms and animal.

Mari Ishtar pl. 67: 546, seal; animals, two registers.

Mari Palais pl. XL: 1275, broken seal; animals, originally two registers but recut?

These seals look like crude copies of various design types current in third millennium glyptic.

C THE LATER MESOPOTAMIAN TRADITION

The earlier Mesopotamian tradition was that of the Uruk style, which we saw had a profound effect on the earliest Syrian cylinders. In the south this style was changed in ED I to a glyptic with quite different compositional principles (Pittman 1994, 263-4). At first this new tradition had little effect on Syria, but over time it became more and more important as new fashions in the south were increasingly adopted in the north. I shall treat Syrian glyptic of southern Early Dynastic type first, followed by the Syrian derivatives of the Early Dynastic style and finally the Akkadian and Ur III glyptic of the north.

1. Early Dynastic glyptic

1.1 ED I-II seals

1.1.1 ED I

Mozan I fig. 36: M1 174, impression (ED III context).
Mozan I fig. 40: M1 181, impression (ED III context).
GMA 877, seal, bought Mosul.
Nineveh: Collon and Reade 1983, no. 6 (FI 677), impression (out of context).
Leilan IIb: Parayre 1988, no. 9, impression (middle Ninevite V context)

1.1.2 ED IIA Elegant Style

Mari Ishtar pl. 65:1052, seal, from south of temple.
Assur: VR 76, seal.
Assur: VR 77, seal.

1.1.3 ED IIB Crossed Style

Mari Ishtar pl. 65:1388, seal (niveau c or d).
Mari Ishtar pl. 65:1080, seal (niveau b).
Mari Ishtar pl. 65:1081, seal (niveau b).
Mari Ishtar pl. 65:183, seal (niveau a).
Mozan I fig. 37: 177, impression (ED III context).
Hammam: Ash 152, seal (Amuq I tomb).
Assur: VR 90, seal.
Harran: Prag 1970, 75 fig. 5, "seal, of which we have only a photograph of the impression" (no context).
Byblos I pl. 126:1285, seal, surface.
VR 98, seal (bought Aleppo).

1.1.4 Various, probably ED II.

Chuera: Moortgat-Correns 1988a, 25 fig. 12, impression (Kleiner Antentempel West-Erweiterung).
Mari Palais pl. 40:978, seal (OB context).

Very few seals from Syria obviously conform to the criteria for ED I or IIA seals as known in the south. The two impressions from Tell Mozan first listed above were compared by the excavators (Mozan I, pp. 73, 78) to Protoliterate and ED II seals; but it seems most likely to me that they are late ED I. The dress, open in front, the thick heavy forms, the filling symbols and the horizontal bodies of the animals all conform to designs such as Hansen 1971, pl. 17 (Nippur) or Fara 197, 214, 216²⁰⁷. The seal with a stag GMA 877, bought in Mosul²⁰⁸, may pre-date ED IIB, though I am not sure how to classify it²⁰⁹. The Nineveh impression FI 677 was compared by Collon and

²⁰⁷ The impression Moortgat-Correns 1988a, 19 fig. 6 (Kleiner Antentempel West-Erweiterung) from Chuera is very similar to an ED I design and could be assigned to that period; I prefer, however, to count it with the ED IIB Chuera Style.

²⁰⁸ Now on display in the Louvre.

²⁰⁹ Cf. GMA 368, 373, 396-9, 422, 765, 876 for archaic stags and similar compositions; though normally stags begin in ED IIIA.

Reade (1983, 40) to the archaic glyptic of Ur, where there are ED I designs such as UE III 329. Parayre (1988, 14-15) describes an impression from a stratum at Leilan which should be contemporary with late ED I as a scene of combat with a hydra. While anything is possible, I do not find the drawing convincing; but the impression may well be another ED I contest scene of some kind²¹⁰.

The ED IIA Elegant Style is strikingly rare in the north, being confined, so far as I can see, to two seals from Assur and one from Mari, all of low quality. Even including the ED I glyptic described above, there is vanishingly little, and nothing in context, attesting to links between north and south in ED I-IIA, as compared to the strong evidence for eastern links through the fired steatite style and other piedmont groups. It is thus a complete surprise to find such fine ED IIB glyptic, especially in the series of seals from the Ishtar temple at Mari, in the form of perfect examples of the Crossed Style. Perhaps even more important is the fact that several of these pieces are inscribed²¹¹, announcing the dawn of writing in Syria many centuries after its invention in Sumer. Amiet (1985a, 477) suggests that all of the ED II seals from Mari were found out of context, because Ishtar Temple niveau c is probably ED III. Nonetheless Mari 1388 may have been found in context, if I am right in seeing the construction of Tomb 300 in ED II before the end of niveau c in ED III.

One must imagine at present that the seals from Harran, Hammam and Byblos are all strays, more or less randomly conveyed there, like most or all of the ED I material described above. But the ED IIB style probably did reach as far as Chuera, for two reasons. First, the "Chuera style" (see pp. 114-115) is dependent on southern glyptic and it is at home at Chuera. The evidence from Leilan indicates that it existed already in ED IIB. Therefore it must seem likely that the networks which carried ED IIB glyptic to Syria reached as far as Tell Chuera, and that some of the Early Dynastic contest scenes which were found with the Chuera Style designs in the Kleiner Antentempel West-Erweiterung belong to that time. Second, the sculpture from Tell Chuera resembles earlier southern forms and may be another witness to contact with the south at this time.

Mari 978 shows the ED II composite monster in a simplified form closer in style to ED IIA than ED IIB (cf. GMA 912, 919). This monster is however usually associated with classic ED IIB designs. I have therefore listed it separately together with a Chuera impression which may have resembled it (Moortgat-Correns 1988a, fig. 12), though the nature of the design is unclear.

1.2 ED IIB-III contests

Short descriptions given for some seals are not intended to cover the whole design, but rather to note certain significant details.

1.2.1 Nude man and falling animal

Chuera: Moortgat-Correns 1988a, 25 fig. 12, impression (Kleiner Antentempel West-Erweiterung). Linear stylisation like ED IIB; nude hero with curly hair and bilateral arms.

Chuera 1963, 8 fig. 1, impression, from dump. Falling animal; nude hero with bilateral arms.

Chuera 1976, 22 fig. 3, impression (Kleiner Antentempel West-Erweiterung). Falling animal.

Chuera: Orthmann 1986b, 33 fig. 19, impression, Houses level 4 (equivalent to Kleiner Antentempel levels 2-4, i.e. ED III: Orthmann 1986a, 65). Clothed man; falling animal.

Chuera: Moortgat-Correns 1972, Taf. 36 d,e, seal, Häuser (ED III context). Clothed man; falling animal.

Mozan I fig. 35: M1 172, impression, area K glacis (ED III context). Falling animal.

1.2.2 Non-crossing designs, without clear ED IIB features

Assur: VR 109, seal, with inverted nude hero with bilateral arms between two lions.

Mari Ishtar pl. 65:657, seal, from presargonic house. "Falling sheep"?

Mari Palais pl. 40:854, seal, OB context. Eagle; "Falling sheep".

Mari Palais pl. 40:1404, seal, OB context. Clothed hero. "Falling sheep".

Chuera: Orthmann 1986b, 32 fig. 17, seal, main Chuera period (ED III). Perhaps "Falling sheep"?

Byblos I pl. 125:3835 (GMA pl. 85bis K), seal.

Chuera 1976, 24 fig. 8, impression (Kleiner Antentempel West-Erweiterung). Clothed hero, row of animals.

210 Parayre 1990, no. 1, is described as a Brocade Style cylinder from a grave in the Lower Town at Tell Leilan; I do not find this entirely convincing, but it is hard to judge without a photograph.

211 Mari Ishtar pl. 65: 183, 1080, 1388; Ash 152.

Alalakh: Collon 1982a, 36, no. 42¹², seal, late context. Clothed hero and animal row.

Alut (between Malatya and Samsat): Moortgat-Correns 1970, 146 no. 2, fig. 5, seal. Clothed hero and animals.

Kara Kuzak: Ash 219, seal, from Amuq J tomb²¹³. Eagle; Row of animals.

Mozan I fig. 39: M1 180, impression, Area K glacis (ED III context). Row of animals in two registers.

Occasional crossing of animals is known in Mesopotamian glyptic from the Uruk period, including examples on stamp seals such as Gawra I 31-33. It only became the most important design principle in ED IIB, in the Crossed Style, and remained common until the early Akkadian period. As discussed elsewhere (pp. 13-14, 30), the nature of the crossing itself is not always a good indicator of time, so it can be hard to date seals which do not show particular diagnostic traits or which are not engraved in a readily recognisable style – the latter being especially likely to cause disagreements among scholars.

The first group of designs, nearly all impressions from Tell Chuera, have certain features in common, notably the narrow linear stylisation and a falling animal. The frequent crossing shows that the group is not older than ED IIB; on the other hand, none of the pieces shows clear ED IIB traits and we have an ED III feature in the curly hair of the hero in the first impression listed²¹⁴. I do not accept that the stylisation must be ED IIB, because it does not show the special ED II style of the seals listed above under "ED II" (e.g. in human headdresses with two points); and while it is true that in the standard sequence ED II is more linear than ED III, I think it would be unsound to carry this over into provincial glyptic without corroboration. The nude hero with bilateral arms is certainly more likely in ED IIB, but he can appear in seals assigned by Amiet to ED IIIA (GMA 996) and it would seem unwise to insist that he must be early when he was revived in ED IIIB. Falling animals are most common in ED IIA glyptic and become increasingly rare thereafter. They are not usually shown crossed in ED IIB contexts (GMA 933, 962), but are common then as part of composite monsters (GMA 915, etc.) and when dominated by heroes (GMA 906, 919, 957, 959, 960, 962).

The classic Fara impression Fara 256 (GMA 899) is especially interesting in showing a falling animal between two rampant lions, a composition which is usually later, in the form of the "falling sheep" designs of ED IIIA²¹⁵, some of which belong to the finest ED IIIA style of the Royal Cemetery of Ur. The body and hatching given to this sheep suggest the more modelled style of ED III; on the other hand the sheep is not usually shown crossing other animals, which might suggest a date as late as ED IIIB (GMA 1077). The "falling sheep" designs from Syria do not show any special ED IIIB features, apart from not crossing, and are predominantly actual seals from Mari. One may suggest that this is an ED IIIA group, and that the Chuera impressions, in which the falling animal is not characterised as a sheep, and which do include crossing in the other figures, are earlier because they are different. This allows us to assign the Chuera falling animal group to ED IIB, in agreement with the excavators of Chuera ("Mesilimzeit"), without having to base the argument on the linearity of the engraving or on the special ED II details which are absent. Chuera 1963, fig. 1 is particularly interesting because of a close parallel with Diyala 255, a seal from Oval I which is dated to ED II, running into ED IIIA – exactly the time which I am proposing.

After the "falling sheep" seals, I have added a few designs which have a row of animals or a contest expressed on a horizontal axis, without any crossing or frieze-like geometry. I do not know what date to assign to these pieces, but they are found together with ED IIB-ED IIIA glyptic at Mozan and Chuera²¹⁶.

1.2.3 Various non-crossing designs

Ash 786, seal, bought Aleppo. Bilateral bullman dominating two animals.

Mozan I fig. 33: M1 169, impression, K1 glacis (ED III context). Bilateral nude hero with curly hair.

Mari Ishtar 277, pl. 76: 2822, impression on terracotta fragment, perhaps model chariot; surface. Bilateral nude hero.

Selenkahiya: Van Loon 1979, 106 fig. 16 (Impronte B147), impression on sherd (Level II = Amuq I). Bilateral clothed hero grasping two goats by the beard.

Chuera 1976, 28 fig. 11 (probably same as Moortgat-Correns 1988a, 26 fig. 15?; Damascus 6); impression (Kleiner Antentempel West-Erweiterung, redeposited in ED III). Nude kneeling hero grasping two stags; Imdugud bird.

212 Collon assigns this seal to earlier ED, based on a Kish parallel (Ash 121); but Buchanan (1966, 26) suggests that the Kish seal may be ED IIIA.

213 Woolley 1914, 92, says the Kara Kuzak pottery was similar to the Amarna pottery, which was later than that of Hammam and included vertical-rim bowls. Cf. Strommenger 1970, 49-51, Abb. 12f.

214 But this hair can exist in ED IIB as mentioned above: GMA 926, 945, 955, 961.

215 GMA 1016, 1020, 1034, 1035, 1037-9, 1070, 1077.

216 An impression from a final Ninevite V stratum at Tell Raqa'i (Curvers and Schwartz 1990, 20 fig. 23) shows a nude man and should be contemporary with the Chuera material from its context; but I cannot understand the nature of the design from the published photo.

Mari Ishtar, p. 191: M.1061, seal, unpublished (niveau c, which is dated from this seal). "Un lion, à mufle aplati, attaquant un animal "à bois".

Mozan I fig. 34: M1 171, impression, K1 glacis (ED III context). Animal and interlace.

Ash 784, seal, bought Aleppo. Animal attacked by frontal lion, flanked by clothed hero and bullman.

Ebla IIB1: Impronte A1, impression on sherd (Amuq I). Caprid attacked by lion; clothed hero.

Mari Ishtar pl. 65: 594 (GMA pl. 77bis B), seal (presargonic house). Clothed man. Clothed hero, lion and falling animal; not crossed(?).

These designs do not fit clearly into the groups which comprise the bulk of the Early Dynastic contest scenes from Syria. Ash 786, with its linear stylisation and falling animals dominated by a bullman, might be attached to the ED IIB glyptic discussed above as comparable to the Chuera impressions with falling animals; but this seal does not show the crossed animals typical of that group. Mozan M1 169 is a puzzle, as not enough of it is preserved. It might be a bilateral nude hero in a crossed animals scene, probably to be assigned to ED IIIA rather than ED IIB on account of the spacious composition and broad figures (cf. Gawra I 68); but it might also be an ED IIIB design like GMA 1117. This seems to me less likely, because the arms tend to get reduced in such scenes, but it is possible. The same goes for the impression Mari Ishtar pl. 76: 2822. The Selenkahiya sherd is not likely to date as late as ED IIIB, and the broad figures would suggest a date later than ED II; but the gesture grasping two goats by the beard should be more typical of ED II. Like the Mozan impression just mentioned it may be compared to Gawra I 68.

Chuera 1976, 28 fig. 11 is even more difficult to understand. The general composition is typical of ED IIA, with a kneeling nude hero between two animals (GMA pl. 64). The details of the design, the stags and the Imdugud bird, on the other hand, should not be earlier than ED IIIA. Could this be an ED III recut of an ED II seal? Mari Ishtar, p. 191: M.1061 is unfortunately unpublished, since it is a vital link in the chronology of Mari²¹⁷. Amiet (1985a, 477) drew attention to this seal which, since it apparently includes two features diagnostic of ED IIIA (the stag and the lion with a frontal head), must presumably date no earlier.

The interlace pattern on Mozan M1 171 is best paralleled by Ash 246, which was bought in Aleppo, as is pointed out by the excavators²¹⁸. They also give references for the use of snake interlaces in the Akkadian period. The type goes back to the Uruk period (Jebel Aruda 33) and exists in early(?) impressions from Fara (Fara 177-179).

The last three seals show contests where the figures have the broad ED III bodies. I cannot guess their date within ED III.

1.2.4 Crossed lions

Gawra I 68, seal (Gawra V). Nude hero with curly(?) hair and bilateral arms.

Ash 789, seal, bought near Carchemish; coarse engraving.

GMA 1740 (Amiet 1964, fig. 1), seal, said to come from the upper Jazira. Coarse engraving.

Assur: VR 106, seal. With small banqueting scene; coarse.

Chuera 1959, 11 fig. 15, seal, from deep in the Häuser (ED IIIA context). Clothed man; coarse.

Ebla: Aleppo II 329, seal. Clothed man.

Amuq fig. 382:5, seal, out of context.

Girnavaz: Erkanal 1991, 292 fig. 17, seal.

Hammam et-Turkman: Van Loon 1988, pl. 200:4, seal (no context). Crossed lions; hatched manes; clothed man?.

Chuera 1963, 41 fig. 29, impression, early Chuera context (ED IIIA). Crossed lions, Imdugud bird and small banquet.

Mari Palais pl. 39:677, seal (OB context). Crossed lions with frontal heads; hairy nude hero.

Crossed figures were typical of Early Dynastic glyptic in ED IIB and ED IIIA, according to the standard sequence. I have suggested further that they may have continued through ED IIIB to link with the Early Akkadian examples (see p. 31). The broad bodies and occasional ED III features such as frontal lion heads suggest that the type listed here, where animals of the same kind are crossed to form the centre of a symmetrical design, predominantly belongs to ED III, but it is not possible to suggest whether individual seals are ED IIIA or ED IIIB.

Some hints suggest that the type may have originated earlier than ED IIIA. Gawra I 68 has a nude hero with a hairy head and bilateral arms, which I have compared to several seals above which seem to belong to the ED IIB/ED IIIA borderline.

217 I have used it to show that niveau c must have ended after the beginning of ED IIIA, see p. 47.

218 Buccellati and Kelly-Buccellati 1988, 72; cf. Van Buren 1935-6. See now Martin and Matthews 1993, 33.

1.2.5 Two registers

- Gawra I 43, seal (Gawra VII). Crossed lions; 2 registers. Simple hatched manes.
 Ash 790, seal, bought Birecik. 2 registers; crossed lions; clothed and nude heroes.
 Chuera: Moortgat-Correns 1988a, 74 fig. 12, impression (Kleiner Antentempel West-Erweiterung). 2 registers; crossed animals (details unclear).
 Chuera: Orthmann 1986b, 33 fig. 18, impression from surface. 2 registers; lion with frontal head; humans below.
 Taya IX: Reade 1973, pl. 72a (FI 88), impression. 2 registers; lions crossed with goats?
 Chuera 1973, 47-8, fig. 22 (FI 901, Damascus 8), seal, Steinbau V (early Akkadian context? – cf. Orthmann 1986a, 63). Goats crossed under leopards with frontal heads; 3 registers.

We have here two kinds of crossing. The Gawra and Birecik seals have crossing of identical lions in the same way as in the group discussed above. They have no special diagnostic features, but probably date to some time in ED III. The Taya and Chuera designs have ED III features such as the frontal heads of the lions and leopards, and probably mostly have lions or leopards crossed with herbivores. This conforms with a group of single register designs discussed below. The engraving quality in these two-register seals is variable, from the simplified Taya design to the very fine Chuera seal FI 901. This design has a rare case of the leopard in Syria. It is also unusual in having no primary orientation. Every second animal is reversed, and the feet are so disposed that the design is the same whichever way up it is placed. Diyala 503 (GMA 1022) from the Northern Palace at Tell Asmar (an early Akkadian context) has an inverted leopard with a similar arrangement of the feet, though all of the other figures there have the same orientation.

1.2.6 Crossing of unlike creatures

- Byblos II pl. 193: 10654, seal fragment. Hairy nude hero; bull crossed with broken animal.
 Halawa: Meyer and Orthmann 1983, 104 fig. 4, impression on terracotta chariot (Amuq I-J). Clothed hero; lion crossed with bull; bullman and lion.
 Mari Palais pl. XL:789 (GMA 937), seal (OB context). Crossed lions and goats.
 Mari Trésor pl. 18:4441, seal. Lion with frontal head crossed with bison; bullman; hairy nude hero.
 Mari Trésor pl. 20:4448, seal. Crossed animals frieze.
 Mari Trésor pl. 20:4453, seal. Lion with frontal head crossed with bison; clothed(?) hero.
 Mari Ishtar pl. 65:572, seal, niveau a, below pavement. Lion with frontal head crossed with bison; bullman with tail between legs.

This series comes primarily from Mari, and has markedly late provenances. Mari 572 has been noticed by Porada (1961, 162), who suggested it might be ED IIIB because of the rounded bodies. Three others come from the "Trésor d'Ur", whose generally ED IIIB character is quite clear. I do not see special ED IIIB traits in the seals here listed, but the glyptic of this hoard is coherent, and if some of the seals are ED IIIB, then I think it likely that all of them are.

The Halawa impression is somewhat different, with flatter, coarser engraving, though this may just be the result of being impressed on terracotta. I would not maintain that it has to belong to ED IIIB, though we should note that a very similar chariot(?) model from Tell Bi'a (Strommenger 1981, 33 fig. 5) was impressed with a seal of that phase. If anything, the style of the Halawa design most closely resembles the Ebla sherd *Impronte A1*.

1.2.7 ED contests, unclear.

- Chuera 1963, p. 7 (unpublished), impression²¹⁹.
 Chuera: Moortgat-Correns 1988a, 15 Abb. 3, impression (redeposited in ED III).
 Mari Ishtar pl. 76: 2819, impression.
 Mozan I fig. 34: M1 170, impression.
 Leilan II: Parayre 1990, no. 3, impression. Crossed animals.
 Raqa'i 3: Curvers and Schwartz 1990, 20 fig. 23 (Schwartz 1994, 163 fig. 9), impression (final Ninevite V context).

These impressions are so poorly preserved that no further comment is possible, except for Moortgat-Correns 1988a, Abb. 3, for which I do not know any parallels. It might be compared to Fara 224, but I would not be certain of an early date.

²¹⁹ I am grateful to Dr Moortgat-Correns for sending me a picture of this impression.

1.3 ED IIIB and Angular contests

1.3.1 "Group of Five" contests and similar

Nineveh (Captain Felix Jones): Copenhagen 9, seal; good quality (lapis lazuli), inscribed.

Tell Bi'a: Strommenger 1981, 33 fig. 5, impressions on sealed terracotta plaque (perhaps part of a model chariot?).

Mari Trésor pl. 20:4449, seal.

Mari Trésor pl. 20:4446, seal.

Mari Ishtar pl. 65:566, seal (tombe présargonique).

Mari Trésor pl. 20:4452, seal. Half of the figures inverted.

Mari Trésor pl. 18:4440, seal. Two-register, with banquet.

Mari Trésor pl. 20:4450, seal. Transitional to Angular style.

Gawra I 55, seal (Gawra VI = final Akkadian).

Tell Halaf: Hrouda 1962, pl. 23:2, seal.

Alishar: Von der Osten 1937b, fig. 246:e1036, seal.

Kültepe: Teissier 1994, no. 635, impression of seal recut in OB period.

"Mari": Aleppo II 341, seal, unfinished.

Mozan I fig. 36: M1 175, impression, area K glacis (ED III context). Coarse drilled.

1.3.2 Angular style

Bought Hama: Copenhagen 7, seal.

Nuzi pl. 55Q, seal, in levels containing Late Akkadian tablets (cf. Foster 1982, 7).

Tell Taya IX/VIII: Reade 1973, pl. 71a.

"ED IIIB" is here defined as contest scenes where the figures do not cross each other, but are tightly packed together in a vertical alignment. Most of the seals show the "Group of five", in which a central hero is flanked by herbivores and then again by lions, or some closely similar pattern.

The Nineveh seal is the only one which is really of good quality, and we have no cases in the north of the fine ED IIIB style known in the south in the impressions of the First Dynasty of Ur. This has caused difficulties for the interpretation of the "Trésor d'Ur", which contains many ED IIIB seals together with a bead inscribed with the name of the First Dynasty king Mesannepada whose seal-impression is known from Ur (FI 522). The "Trésor" was found in a jar four metres above the floor of the presargonic palace, which is not a useful provenance; but we may assume that the contents comprise a secure context with respect to each other. Moortgat and Moortgat-Correns (1974, 161) suggest that all of the objects in the jar can be dated later than the Mesilimzeit and earlier than the Akkad period, and favour a time in the transition between ED IIIA and ED IIIB²²⁰ for all the seals except perhaps 4450, whose resemblance to the Angular seals strikes them as later. Although I do not think that the bead should be taken too seriously as an indication of date (it would be preserved as a large piece of lapis lazuli) a date at any time in ED IIIB for the whole collection would seem most likely, i.e. in the time of Mesannepada or later, but not earlier. There is no reason why the "ED IIIA" crossed contest scenes should not belong to ED IIIB – as is shown by the seal of Mesannepada's wife (FI 523) which has one register with each type of frieze. The stylistic consistency of the seals speaks strongly for a chronological unity for the whole hoard, though not for a provenance at Ur. If not made at Mari, the drilled engraving would suggest most likely a provenance somewhere in northern Babylonia, such as Kish²²¹. The Mozan impression M1 175 might also belong in this context, because of its drilled style and non-crossing figures; but most of the material from the Area K glacis seems to be earlier²²².

The Angular style seals have exactly the same principle of composition as the ED IIIB "Group of five" seals, but the linear cutting is quite different. None of the ones listed above show any specifically Akkadian features, but seals of this kind often do so (BM II pl. VII). They may therefore be regarded as transitional between Early Dynastic and Akkadian glyptic.

220 "Den Übergang bis zum Beginn der I. Dynastie von Ur."

221 Moortgat and Moortgat-Correns 1974, 159; Amiet 1985a, 480.

222 Cf. perhaps also Ash 778, bt. Aleppo.

1.4 Early Dynastic scenes other than contests

1.4.1 banquet scenes

Mari Ishtar pl. 66:357, seal. Drinking tube.

Mari Ishtar pl. 66:567, seal. Drinking tube; 2 registers.

Mari Ishtar pl. 66:587, seal. Drinking tube; table.

Mari Ishtar pl. 66:664, seal. Table.

Mari Ishtar pl. 66:750, seal. 2 registers.

Mari Ishtar pl. 66:1071, seal (niveau b). Drinking tube; 2 registers.

Mari Ishtar pl. 67:274, seal.

Mari Ishtar pl. 67:592, seal.

Mari Ishtar pl. 67:593, seal.

Mari Ishtar pl. 76:2770, impression. Drinking tube; 2 registers.

Mari Trésor pl. 19:4445, seal. Drinking tube; 2 registers; "building a ziggurat" below.

Mari Trésor pl. 20:4447, seal.

Tell Ashara (Terqa): Thureau-Dangin and Dhorme 1924, pl. 58:4 (Moortgat and Moortgat-Correns 1974, pl. 22:10), seal. Table; 2 registers; eagle and contest above.

Rimah: Parker 1975, no. 5, seal (late context). 2 registers; very worn and recut(?); couch for hierogamy(?) below (Parker 1975, 23-4).

Assur: VR 142, seal. 2 registers. Drinking tube; geometric design above.

Assur: VR 143, seal. Drinking tube; 2 registers in reverse orientation.

Leilan IIIId: Parayre 1987-8, no. 6, impression (final Ninevite V). Drinking tube.

Chuera 1976, 23 fig. 5, impression (Kleiner Antentempel West-Erweiterung). Probably drinking tube.

Chuera 1976, 31 fig. 13, impression (Kleiner Antentempel West-Erweiterung). 2 register; good quality with harpist and inscription.

Carchemish (acquired): GMA 1160, seal. Drinking tube and harpist; 2 registers, animals below.

Ebla IIB1: Impronte A20, impression on sherd.

"Ebla": Aleppo II 346, seal.

Byblos I pl. 126:4504, lapis lazuli seal (Saghieh 1983, 43, 120, period KIII/IV = Amuq I).

This list makes the dominance of Mari obvious; but the pieces from Rimah and Leilan show that the banqueting scene was widely distributed in the Ninevite V area and around it (as at Chuera, Terqa and Assur). The western cases, from Carchemish, Ebla and Byblos, should probably be seen as strays. Chuera 1976, fig. 13 is particularly interesting because of its good quality from a site so far to the west.

I shall not undertake a general study of these banqueting scenes, which may be found in Selz 1983. The chronology which is suggested there may, however, be questioned. For example Selz (1983, 24) suggests, on stylistic grounds, that Chuera 1976, 22 fig. 4 must date to ED I. This apparently rests on comparisons with Fara, which should not be admitted. The only real point of comparison is that both sites are producing very simple designs. In the case of Fara this may be due to date, in Syria, perhaps because the designs are provincial. This Chuera banquet, while certainly related to an Early Dynastic tradition, is to be regarded neither as a standard Early Dynastic seal, nor as a provincial degeneration of one; but as a member of a coherent Syrian style derived both from Mesopotamian and, to an equal extent, from Syrian traditions (see p. 115). To construct a history of banquet seals in Syria from apparent similarities to Mesopotamian banquet scenes whose own dates are often insecure, is thus unjustified. All that can be said, on the evidence of Leilan IIIId, is that the banquet scene participated in the first major transmission of Early Dynastic ideas to Syria in ED IIB; and on the evidence of the "Trésor d'Ur", that some banquet scenes found in Syria were made as late as ED IIIB. Syrian seals in Early Dynastic style, indistinguishable so far as can presently be understood from the Early Dynastic seals of the south, should be distinguished from banqueting scenes in identifiable Syrian styles which are derived wholly or partially from the Early Dynastic tradition.

The list of true Early Dynastic seals given above does not support Selz' suggestion (1983, 437) that the scene with the table was especially common in Syria; on the contrary, we see that the type is dominated by scenes with the drinking tube. The table is indeed common in Syria, but mainly in seals related to the Brak Style whose peculiarities are more than can be ascribed to ignorance, and which should therefore be treated as a style in its own right (see pp. 117-118). The presence of the table thus speaks for something more than a local preference, indulged without effect on the general nature of the glyptic. It is rather an integral factor in the native character of the Brak style, and must express some way in which the banqueting scene was understood differently in the north. This should not surprise us when we recall that the table, above all, was the motive transmitted from the Syrian glyptic of the Early Bronze Age to the Old Syrian period (see p. 148).

1.4.2 Special Early Dynastic scenes

Assur: VR 242, seal. Boat.

Gawra I 45, seal. Boat.

Chuera: Moortgat-Correns 1988a, 16 fig. 4, impression (Kleiner Antentempel West-Erweiterung). Very linear; in boat with drinking tubes.

Hama J6: Ingholt 1940, pl. XIV:1 (Impronte B90, GMA 1208), impression on sherd (Amuq I). Boat.

Mari Ishtar pl. 66:976 (GMA 1207), seal. Boat.

Mari Ishtar pl. 66:545, seal. Boatgod.

Mari Ishtar pl. 66:588, seal. Boatgod.

Mari Ishtar pl. 66:596, seal. Boatgod?

Mari Ishtar pl. 66:752, seal. Boatgod.

Mari Ishtar pl. 76:2769, impression. Boatgod.

"Mari": Aleppo II 343, seal. Boatgod.

Mari Trésor pl. 19:4442, seal. 2 registers: boatgod and "building a ziggurat".

Mari Palais pl. 50:243 (GMA 1789). Perhaps "building a ziggurat"?

Mari Trésor pl. 19:4451, seal. Perhaps "building a ziggurat"?

Mari Palais pl. 40:1303, seal, broken. Chariot scene.

It is remarkable how these special Early Dynastic scenes are almost entirely confined to Mari, except for the boat (*not* the boatgod), which is rather more widely distributed²²³. Moortgat-Correns 1988a, fig. 4, although a very coarse design, has a most striking parallel with a seal from Ur (UE II 94), as Moortgat-Correns (1988a, 16 fig. 5) noticed. Another design of the same type has now been published from Lagash (Hansen 1987, pl. XVI:28).

Therefore, while the Syrians wanted their seals to look Early Dynastic, and could do so by adopting the routine Early Dynastic contest and banquet scenes, they had no interest in Early Dynastic scenes which had a more particular meaning, except at Mari which assumed a more perfectly southern character. Now this formulation of the problem will not quite do, since we have (for example) boatgods and chariot scenes in the Brak Style, but it does rather suggest that where Early Dynastic ideas had not been built into a new local doctrine, yet Early Dynastic glamour was still desired, then straightforward and easily understood ideas were favoured. This may in turn imply something about the use of these special scenes in Sumer. They may have belonged to particular persons in society whose business did not bring them into contact with Syrians. When the Syrians desired to imitate southern models, it was the more routine scenes which they found available to them.

1.4.3 Eagle and animals

Mari Trésor pl. 19:4444, seal. 2 registers; eagle and horizontal animals.

Mari Ishtar pl. 75:2794, seal (Temple of Ninni-zaza, room 16). Eagle and animals, forequarters slightly raised.

Nuzi pl. 55R, seal (in stratum with Late Akkadian tablets). Eagle and animals, forequarters slightly raised.

Gawra I 49, seal (Gawra VI = final Akkadian). Eagle and animals with lowered forequarters; "Akkadian" tree.

Gawra I 50, seal (Gawra VI = final Akkadian). Eagle and animals with lowered forequarters.

Assur: VR 131, seal.

Comparison of the designs from Mari and Gawra VI suggests that the type where the animals have lowered forequarters is probably later, the two types corresponding to the difference between the Early Dynastic and the Akkadian period. This distinction is discussed above, p. 30.

1.5 ED Geometric patterns

1.5.1 Dotted lattice pattern

Tell Chuera: Unpublished seal, excavated by Lauffray, perhaps in the Häuser²²⁴.

Mari Ishtar pl. 67:251, seal (ED III).

²²³ The chariot scene Chuera 1959, 19 Abb. 23, was found with second millennium material and may date to that time.

²²⁴ Cf. Kühne 1976, 31. I am much obliged to Dr Moortgat-Correns for sending me a picture of this seal and information on it.

Three geometric patterns, the dotted lattice, the wave pattern, and the festoon, which are found in the glyptic of the Royal Cemetery at Ur should be ascribed to the ED III period. The *dotted lattice* which occurs twice in eastern Syria (not counting Tell Brak), in both cases in contexts which could well be ED III. At Ur it occurs in UE II 3 from PG 1382 and UE II 128 from PG 1665, the latter being a particularly good parallel for the Chuera seal. Grave 1382 also produced UE II 67, a fine ED III contest seal, while PG 1665 is assigned by Pollock (1985) to her Phase III, i.e. later ED III. There are also five seals of this kind from Khafaje, all of them from the upper levels of the Houses area, i.e. ED IIIB (Diyala 325-327, 349-350). At Abu Salabikh, the type occurs in the Ash-Tip which belongs to ED IIIB (Martin and Matthews 1993, 34-5). The evidence is thus all in accordance with a date for these seals, and indeed for the whole use of geometric seals in EB III-IV Mesopotamia, in the later part of the ED III period, just before the Akkadian period. The characteristic duplication of the lines in the lattice separates this group from the lattice pattern proper, and the objects are often made of white materials such as shell²²⁵. It seems probable that the Syrian cases are imports, since the full range of patterns is not present there and they come from sites which are known to have had strong links with the south.

1.5.2 Wave patterns with figures

Gawra I 44, seal from Gawra VII.

Mari Ishtar pl. 67:807, seal from presargonic house.

Tell Habuba Kabira: Heinrich 1973, 66 Abb. 27, impression on anepigraphic tablet together with Early Akkadian impression.

Assur: VR 248, seal from Erdgrab 2 (Haller 1954, 6: together with VR 203).

Munbaqa: Aleppo II 401 = Machule and Wäfler 1983, 124 fig. 1.

The non-figurative *wave pattern* was mentioned above in the context of Ninevite V glyptic (see p. 76). A type of wave pattern has the space left over by the wave filled by figures, not by hatching or geometric forms. Two sherd impressions from Tell Gubba (15, 16) show that this type originated early and may have been partly inspired by the fired steatite style (cf. GMA 472). An impression from Nineveh (Collon Yale 77) probably therefore goes with the other designs of that time from there.

There is not really any reason to think that these precocious designs influenced the main series of seals with the wave pattern combined with figures, which began in ED IIIA, to judge from a seal from Khafaje (Diyala 269). Although coarse, this seal has already the combination of wave pattern and eagle which was to remain typical of the group for some time²²⁶. Similar seals which probably also belong to ED III include Diyala 323, Gawra I 44, and Mari Ishtar pl. 67:807²²⁷. These three seals all have the eagle and, significantly, show a characteristic notching of the central wavy line as is seen also in the unstratified, but surely Early Dynastic, Diyala 416. This notched line exists also in Diyala 572, from a late Akkadian context, and probably in the interesting impression from Tell Habuba Kabira, which is on the same tablet as a good early Akkadian impression. VR 248, on the other hand, is probably rather later, to judge from the second seal found in the same grave at Assur, VR 203. An unstratified seal from Tell Asmar, Diyala 749, is almost identical. The notched wavy line however apparently continued for several more centuries²²⁸, which leaves us with a problem in estimating the date of the Munbaqa seal, which has humans and animals of somewhat indeterminate style as well as the wave²²⁹. If, as was suggested above, these designs with the wave pattern with figures were not derived from the "fired steatite" style, what was their origin? I do not have an answer to this question, but some points may be noted.

First, the independent Early Dynastic geometric tradition exemplified by seals found in the Royal Cemetery at Ur includes the *festoon pattern*, which, though absent from northern sites and, indeed, from the Diyala region, has a certain formal similarity with the wave pattern, both in the curved forms and in the use of a notched line flanked by simple lines (cf. UE II 129-30, 202-5). It is difficult to date, because it does not occur in any of the graves seriated by Pollock (1985). The best indication is given by UE II 2 from PG 1374, a grave which contained also the ED IIIB seal UE II 70. Acting on the assumption, which is borne out by the evidence (pp. 23-24), that seals found in the same grave should be roughly contemporary, this places the festoon pattern somewhere between ED IIIA and early Akkadian, i.e. the same time in which the wave pattern began. Other Ur festoon seals are not well dated (UE II 129-

225 For these reasons Suleimeh 26 probably belongs here. Diyala 350 was made of shell with lapis lazuli inlay.

226 For this reason it may be better to place Diyala 384 here than with the "fired steatite" seals.

227 I see no reason to follow Amiet 1985a, 482 in regarding this seal as a Neo-Sumerian intrusion.

228 In Ur III, e.g. VR 247; in Old Syrian, see Buchanan 1966, 163 no. 847 = Collon 1987, 44 and n. 7, no. 145; cf. BM II 185. The much more common use of a *straight* notched line between two simple lines in Old Syrian glyptic (Marcopoli 558-9, etc.) makes it hard to resist this conclusion. Cf. Selz 1983, 349.

229 Cf. also Suleimeh 97 (OB context).

30, 202-5). We may therefore propose a southern origin for the wave pattern, without actually being able to find proof that the influence did not run in the other direction; but in general, the south was less affected by the north than the north by the south.

The wave pattern also fits into the scheme of southern iconography. The combination of eagle and animals is a familiar southern scene which is sometimes found also in northern sites. The eagle is repeatedly combined with animals on either side of the wave (e.g. UE II 85), and sometimes the animals are disposed so as to suggest a wave even when a wavy line as such is not shown²³⁰. Provenances from Gawra and Tell Asmar suggest that this arrangement is Late Akkadian or even later, so the wave pattern and the "eagle and animals" scene may have grown together over time: both certainly originated earlier.

2. Syrian Early Dynastic

2.1 Provincial Early Dynastic and Big Dagger scenes

GMA 1738 (Amiet 1963, fig. 15), seal (bought Beirut). Frontal lion and bison; frontal nude hero.

Jerablus (acquired): GMA pl. 85bis N, seal. Frontal lion crossed with bull; bullman with dagger; plants.

Ash 759 (GMA pl. 85bis H), seal (bt. Aleppo). Hero, lion crossed with horned animal.

Chuera 1974, 47 fig. 19, seal (from building with typical Chuera pottery (i.e. ED III?) from under the Mitanni-Bau). Crossed lions contest; hatched bodies.

Amuq fig. 327 (GMA pl. 85bis M), seal (Amuq I). Frontal lion crossed with bison; big dagger; hatched bodies.

Selenkahiya: Van Loon 1968, 30-1, not illustrated (Aleppo II 326?), seal (surface). Crossed lions with frontal heads; hero with head like a circle; big dagger.

Tell Abu Danne: Damascus 102 (Impronte B123), impression on sherd. Apparently tête-bêche seated humans and big daggers.

Zencirli: VR 776 (Sendschirli V, pl. 39a), seal. Crossed lions, bullman, big dagger; hatched bodies.

Girnavaz: Erkanal 1990, fig. 15, seal. Bullman(?) and animals; baroque postures; hatched bodies.

Bought in Syria: Brussels I p. 92-3 no. 471 (Damascus 99; Amiet 1963, fig. 19). Lion, eagle; kneeling man with raised spiky hands; hatched bodies.

Hama J6: Copenhagen 118, sherd (late Amuq I). Nude hero with raised spiky hands; rampant lion.

Ebla IIB1: Impronte A16, impression on sherd (Amuq I). Hero with spiky raised arms; big dagger, rosette²³¹ and ladder pattern; style not like ED.

Ebla IIB1: Impronte A21 (Mazzoni 1993, A46), impressions on sherds (Amuq I). Hero, animal, big dagger and ladder pattern; style not like ED.

Selenkahiya: Van Loon 1979, 103 fig. 11, seal (Amuq J context). Simple contest with big dagger; herringbone hatched band; style not like ED.

Chuera 1959, 11 Abb. 14 seal (near surface). Crossed lions, herringbone strips.

This group is defined as contest scenes which would be noted as foreign if they were found in Mesopotamia, yet which can be related to the Early Dynastic tradition. The list does not include seals which can be attached to the Brak style through their geometric bands or detached heads, except for the last two mentioned which are not, however, similar to the Brak style in their style of engraving.

The western, but inland, provenances of these seals are remarkable, with only Girnavaz lying east of Tell Chuera. This is therefore the glyptic of the Ebla and western Euphrates region. The seals do not all belong to the same style, but a continuous sequence of connections brings them together, and they should be understood as variant responses to the problem of assimilating the Early Dynastic style in western inland Syria. GMA 1738 and the Jerablus seal are the closest to Early Dynastic glyptic, and indeed I would have included them there were it not for their relationship to the Amuq seal. We found in the investigation of ED contest seals that scenes where animals of different kinds were crossed tended to come from ED IIIB contexts at Mari. An impression from Halawa (Meyer and Orthmann 1983, 104 fig. 4), however, links that type of seal to ours. Ash 759, on the other hand, has a strongly provincial engraving style.

The Amuq I seal Amuq fig. 327 acts as a further link between this material and the rest of our list. The crossing of unlike creatures and the general engraving style are ED III of the kind familiar to us from the bulk of the crossed contest seals found in Syria; but we have also a large dagger which is the most consistent feature of the contests

230 Gawra I: 49, 50 (level VI); Diyala 641 (final Akkadian); UE II 86-9, 136 (not dated); perhaps also VR 131 from Assur, if it is not Mitannian.

231 This seems more likely to me than "aquila" (Mazzoni 1992a, 70).

which are not engraved in an ED style. Seals from Chuera and Selenkahiya have similar features, but now with the crossing of identical animals. These three seals all have heavily hatched bodies in the manner typical of much ED glyptic from Syria, but they are not otherwise unusually stylised.

With the Zencirli seal VR 776, on the other hand, we enter a different world, decisively different from Early Dynastic for the first time. We have seen the heavy hatching, crossed lions, bullman and big dagger before, but the baroque outlines and hatching in panels all over the body are new. The other seals had hatching more organically related to the animal forms, such as on the necks of lions. The Gimnavaz seal is still more extraordinary, and with its clumsy construction and elaborate curves looks almost like an experiment. Similar forms are seen in the Brussels seal in which for the first time we have a clear connection to the ancient native tradition of western Syria. The general arrangement, with bird, lion and kneeling man, is quite like an ED IIA design (cf. GMA 871)²³²; but there is no particular reason to assign this seal so early when the comparable material so repeatedly shows ED III traits such as frontal lion heads. More likely we are looking at western Syrian imitation of Early Dynastic glyptic, and the imitators did not know whether the seals available to them for imitation had been made recently or not. More interesting is the way in which the man has been given raised spiky hands. This is a direct reference to the main tradition of inland western Syria which we have observed in EB I and EB III, and which we have therefore inferred must have existed in EB II also. Our group therefore should not be seen as an ignorant imitation of a misunderstood foreign style; but as a deliberate fusion of native and foreign elements analogous to the Chuera Style (see below). We see no direct references to the ED IIB glyptic of Chuera, so we are not seeing the further development of that glyptic (as may be the case with the Brak style), but rather an independent fusion of motives meeting each other up and down the Euphrates, probably in ED III.

The EB Man occurs also on the Hama and Ebla sherds Copenhagen 118 and Impronte A16, which give us a date contemporary with ED IIIB. In A16, unlike in the Brussels seal, he is associated with the big dagger; but now the style no longer resembles that of Early Dynastic Mesopotamia, and in the other Ebla sherd A21 and the second Selenkahiya seal we find the big dagger in a thoroughly EB setting²³³. In these seals we see hatched bands or structures, but not the special hatching of figures which we found in most of the seals which were closer to Early Dynastic. We may therefore propose that the fusion of the same double inheritance, both from ED Mesopotamia and EB inland Syria, gave rise to two independent styles, one with hatched bodies and a more ED style of engraving, and the other with hatched bands and a more EB engraving, apparently at the same time in Amuq I and in the same region of inland western Syria.

The dagger is usually shown crudely with little typological clarity, but Van Loon (1979, 103) and Philip (1989, 105-6) have compared the dagger on the Selenkahiya seal Van Loon 1979 fig. 11 to MBA and EB-MB forms and to material from Tomb IV at Qatna. This would favour an Amuq J date for our material, but this is likely to be misleading. Leaving aside the repeated stratigraphic indications in Amuq I, and the Mesopotamian relations which are exclusively with the Early Dynastic period, the salient feature of our daggers seems to me to be the crescentic hilts which are clearly marked on several of them. Such hilts are familiar on seals as early as ED IIA (e.g. GMA 894) and are more likely to be accurately transmitted in a miniature form on glyptic than details of the shape of the blades which are all that can be assessed from excavated metalwork, as evidence for hilts is very rare. I would therefore be inclined to see the big dagger in the context of Watkins' remarks (1983) on the similarity between Early Dynastic and western Syrian metalwork.

2.2 The Syrian Ritual

Mari: GMA 1774, seal.

Mari Trésor pl. 19:4443, seal.

GMA 1353 (Amiet 1963, fig. 23; FI 755), seal (ex-Marcopoli coll., Aleppo).

The Syrian Ritual has been treated by Amiet (1963, 78; GMA 1351-1354). GMA 1353 is the most informative piece, where we see that the Ritual involved a structure built in compartments and a great seated deity who may recur on the Mari seal GMA 1774²³⁴ and in Suleimeh 14²³⁵. Numerous devotees attended the Ritual, some forming a

²³² Cf. for this composition Chuera 1976, 28 fig. 11, though in quite a different style.

²³³ Cf. also the Hama sherd Copenhagen 119 (see pp. 97-98).

²³⁴ Amiet 1980, 208 suggests that this seal may show a scene of human sacrifice; while I would be reluctant to believe this without further confirmation, I am following him in seeing this seal as something more than a badly cut banqueting scene. Mari Ishtar pl. 67: 561 is also hard to understand as a banquet scene and it may be better to see it as the presentation of an animal before a seated god.

²³⁵ Though the "building a ziggurat scene on this seal indicates that it is not a Syrian import. Was the Syrian Ritual equivalent in meaning to "building a ziggurat"? Both involve rows of men with raised arms approaching a structure, and their distributions, except at Mari, are mutually exclusive.

procession, others ranged on the roof of the structure, and all of them lifting one or both hands in the ancient Syrian manner – though the style of the engraving is always similar to Early Dynastic. GMA 1354 (BM I pl. 28a) shows a kneeling man within the structure, rather like the kneeling man on the seal Brussels I p. 92-3 no. 471, which we identified as a fusion of Mesopotamian and Syrian traits²³⁶.

A series of sherd impressions from Palestine have a related design with a row of figures on top of a structure (Ben-Tor, IIIB)²³⁷. One of the sherds has a date in the Palestinian EB III²³⁸ contemporary with our Early Dynastic material. The figures do not however raise their hands as in our series, but hold hands in a manner comparable to the EB III sherd impressions of Syria such as Copenhagen 121 (cf. Ben-Tor 1978, fig. 22). Furthermore, although the structure is compartmented in Palestine, it does not contain figures as in Syria, and the Palestinian sherds are not engraved in a style resembling Early Dynastic glyptic. Ben-Tor (1978, 80) makes this comparison but he does not find it entirely convincing.

2.3 Chuera Style

2.3.1 animals

Mozan I fig. 33: MI 167, pl. XVI: 28 (Impronte B156), sherd, glasis K (ED III).

Mozan I fig. 38: MI 178, impression, glasis K (ED III).

Mozan I fig. 41: MI 182, pl. XIX: 41, peg sealing, surface.

Leilan II: Parayre 1990, no. 4, sherd.

Leilan II: Parayre 1990, no. 2, impression.

Tell Mohammed Kebir (near Qamishli): Meijer 1986, fig. 9 (Impronte B152), sherd, surface.

Jigan: Ii and Kawamata 1984-5, fig. 11:184, impression (surface).

Chuera: Moortgat-Correns 1988a, 19 fig. 6, impression (redeposited in ED III).

Chuera: Moortgat-Correns 1988a, 20 fig. 7, impression (redeposited in ED III).

Chuera: Moortgat-Correns 1988a, 20 fig. 8, impression (redeposited in ED III).

Chuera: Moortgat-Correns 1988a, 22 fig. 10, impression (redeposited in ED III).

Chuera 1976, 23 fig. 6, impression (redeposited in ED III).

Chuera 1976, 24 fig. 7, impression (redeposited in ED III).

Chuera 1964, 44 fig. 31, impression (redeposited in ED III).

Chuera 1964, 42 fig. 29, impression, with snake and scorpion (from dump).

Khafaje: Diyala 256, seal from Oval I, with man and animals (ED IIIA or earlier).

Hammam: Ash 724, seal with animal and bird (later third mill. tomb).

Ebla: Impronte pl. 49:6, seal.

Habuba Kabira, Tell: Strommenger 1973, 65 Abb. 26, seal (stratum unintelligible²³⁹).

There are some differences between the Khabur material, primarily impressed on sherds, and the Chuera impressions on bullae, but the consistent shape of the animals, with angular bent legs, often over a spiky object, ensures the coherence of the group. The subjects, usually either a human and an animal, or else a row of animals, are similar to the Syrian Animals Group (see pp. 96-97) and fit generally better into western Syrian iconography than Mesopotamian, as does the presence of sherd impressions, which had died out in the east after ED I. The raised arms of the man in Moortgat-Correns 1988a, figs. 6, 7, and the large rosette *ibid*, fig. 8, Chuera 1964, fig. 29, Diyala 256 and Ash 724, are strongly reminiscent of EB III western forms (see pp. 95, 100). Other possible western traits include the fish, birds and wedges used as fillers²⁴⁰. We have repeatedly seen wedges used in western glyptic of various kinds for filling, from EB I (e.g. Ash 715) to EB III (e.g. Copenhagen 121), and at Byblos (Impronte B58). Fish in the Byblos style are noted by Ben-Tor (1978, 56) and birds by Teissier (1987, 37) and Mazzoni (1984, 23 n. 21). On account of its provenance and the numerous wedges in the field, which resemble the Mohammed Kebir sherd, I include here the Chuera impression Moortgat-Correns 1988a, 23 fig. 10. The presence of the lion, however, and the

236 Cf. also Fara 168 and 171.

237 Cf. also now Greenberg 1992, sherd B, with a row of animals above a lattice. I owe this reference to Pirhiya Beck.

238 Ben-Tor IIIB-2; also Lapp 1989, fig. 5.

239 Strommenger 1971 has levels 7-8 at the bottom in the Uruk period while Strommenger 1970 has level 10 higher up with Hama Beakers. This might be the same as the Heusch scheme summarised in Strommenger 1980, 69f. Curvers 1989, 178 suggests that Heusch Level 2-3 = Heinrich Level 6, equivalent to Hama K8-7 and later than the Late Uruk of Habuba Sud, which might represent an EB I assemblage (cf. Thuesen 1988, 180). If the "Level 5" of this seal belongs to the Heinrich scheme, then a date in EB II, later than level 6, might be appropriate. The same might follow from the Heusch scheme if level 5 is somewhere between level 2-3 (EB I) and level 10 (EB III/IV).

240 Chuera 1976, fig. 7; the Mohammed Kebir sherd. For this reason the burnt test strip Mozan I fig. 33: M1 168 may belong here; but I am unable to account for the crossed legs of the animals. They could be compared to ED I designs such as Fara 198, 224, but in other respects the design is closer to the other pieces considered here.

fluid lines of this design, are quite unlike the other seals in our group, and I do not really have an adequate explanation for the piece²⁴¹.

The Ebla and Habuba seals cited above are not typical of the Chuera Style, but are probably related. The Ebla seal has an animal with bent legs like in the Khabur examples; it also has a hatched band and a rosette similar to Yale 360 and to Brak 476 which I shall suggest is related to the Chuera Style. The Habuba seal has an animal more similar to the Syrian Animals style, like Yale 360, but it too has the rosette and the hatched border which exist in 514-517 which may also be related to the Chuera Style (see p. 146).

The scorpion, which is almost universal in our group, is however rare or missing in Palestine and in the Byblos style. It was prominent in archaic glyptic and was always used as a filler in Mesopotamia. Here, however, the most likely association may be with the figurative seals with a large rosette which we have already seen as an inspiration for one of our scenes (e.g. Chuera 1964, fig. 29). In the rosette design Diyala 256 the animals and filling wedges are indistinguishable from some of the material from Chuera listed above. Yet our discussion of the rosette group (see p. 95) showed it was strongly represented in the west²⁴², though not Palestine, whereas the present group is clearly located in eastern Syria. Tell Chuera appears as the vital site, within both the region of the Khabur sherd style, and within the region of the Euphrates and western rosettes.

2.3.2 banqueting scenes

Leilan IIId: Weiss 1990b, pl. 140b (Parayre 1987-8, no. 7; 1988, no. 11), impression (final Ninevite V).

Leilan IIId: Weiss 1990b, pl. 140c (Parayre 1987-8, no. 8; 1988, no. 12), impression (final Ninevite V).

Leilan IIa: Weiss 1990b, pl. 140b (Parayre 1987-8, no. 9; 1988, no. 13), impression (ED III).

Chuera: Moortgat-Correns 1988a, 15, fig. 2 (Chuera 1976, fig. 4), impression (redeposited in ED III).

Chuera: Moortgat-Correns 1988a, 73, fig. 11 (Chuera 1974, fig. 22), impression (redeposited in ED III).

The crucial design here is the Chuera impression Moortgat-Correns 1988a, 15 fig. 2, which has a banqueting scene of Early Dynastic type, with three seated persons, one of whom plays a harp. The simple linear engraving and the barred effect given by the stools and harpstrings in the Chuera seal cannot be separated from the three impressions from Leilan, which are if anything less Mesopotamian in their stylisation²⁴³. Yet the banqueting scene must have been inspired from the south: no trace of it exists in Syria prior to the Leilan impressions. The Leilan impressions, however provincial their style (as Parayre 1988 has stressed) are nonetheless the most convincing evidence for Early Dynastic cultural influence. In the remarkable Chuera sealing Moortgat-Correns 1988a, 73, fig. 11, from the same context as most of the other Chuera style impressions from that site, the rendering of the animals, fish, scorpion and harpist are all in accordance with the other Chuera style designs, but the chariot scene and the division in two registers are further southern traits which occur also in the Brak Style (cf. p. 136).

Yet the rest of the impression Moortgat-Correns 1988a, 15 fig. 2 shows a horned animal, with angular legs and above a spiky object and a scorpion, surrounded by little wedges, in exactly the manner of the group described in the previous section. Therefore the Chuera and Leilan banqueting scenes, which must represent Mesopotamian influence, cannot be separated from the Chuera and Leilan animal scenes, which I suggested above owed nothing to Mesopotamia. I propose that this is a single style, made and used in the district from Chuera to Leilan. Viewing both halves of the style together, we see that its inventors combined two independent sources of inspiration which became equally important in the repertory. On the one side, they borrowed the banquet scene from Mesopotamia; on the other, they took the man with raised arms with his animals, fish, bird and scorpion from a western Syrian tradition which also inspired the rosette designs and the Syrian Animals style. We have seen that this tradition drew on very ancient Syrian sources and was probably located in inland western Syria in EB II (p. 100).

2.4 Chronology: the glyptic of Tell Chuera

To understand the chronology of the Chuera Style, we should begin with Tell Chuera, because it is the most important published source of stratified seal impressions on bullae, and many of the better-quality styles are best attested in this kind of evidence.

241 Moortgat-Correns compared the wedges to the Arsameia seal (Moortgat-Correns 1965, fig. 1) and to UE III 483; but these designs have no other similarity to the Chuera impression. Wedges also occur in the seal from Jerablus, GMA pl. 85bis A, but the style is different again.

242 E.g. Imprime A7, 15, B95, 96, 105.

243 Though this may result from more distorted impressions combined with a less tidy (or more faithful) drawing style at Leilan.

The stratification of Chuera can be understood as a sequence of four phases. We have a uniquely good picture of the pottery of Chuera in Kühne's book (1976), and we may call the era described there the "Chuera period"²⁴⁴. I have shown above (see pp. 42-43) that this period coincides more or less exactly with ED III and EB III. In addition to the Chuera period, there is material which can be dated earlier and later than the era covered in the earlier excavations which form the basis for Kühne's book.

The following four designs have deep provenances and may therefore be assigned to the early Chuera period. Orthmann 1986b, 57 fig. 35 is an impression of a geometric seal on a terracotta chariot body, from level 9 in Orthmann's deep sounding. Other known sealed chariots have ED III impressions, so probably the object was not re-deposited, but it not unlikely that the seal was an antique when it was used, left over from an older period.

Chuera 1959, 11 fig. 15 is a seal from a depth of 2.5 m in the Häuser. It is a crude crossed lions design of a kind which could have been made at any time from ED IIB to ED IIIB. The impression Chuera 1963, 41 fig. 29b, which comes from Level 5 in the Kleiner Antentempel, also shows a crossed lions contest (of rather better quality), but it must be dated to ED III because of the Imdugud bird. This therefore supports my belief that we are still in ED III at the bottom of Moortgat's excavation.

The impression Chuera 1964, 44 fig. 31 comes from a similar provenance (below Kl. Ant. 4). The rigid stance of this animal and the small filling shapes around it shows that it belongs to the Chuera style which I shall assign to ED IIB.

The remaining glyptic from the Chuera period gives us a picture which is similar but wider ranging. Apart from Early Dynastic contests of the types which are also known in the lower levels, and a banquet scene in the Brak Style (Selz 1983, pl. 13:159) there are several designs related to the western EB III styles, including the Syrian Animals style (Chuera 1985, fig. 13), banquets in a hybrid ED/EB style (Chuera 1985, figs. 11-12) and rosettes (Chuera 1964, 42 fig. 29, Orthmann 1986b, 23 fig. 8). Geometric designs such as Chuera 1960, 10 fig. 6, may all be re-deposited from EB I-II. No Akkadian glyptic whatever has been recovered from these levels.

We need now to be careful about dates. Moortgat (1967, 43) showed that there were similarities between Chuera 1964, 42 fig. 29, with its snake, scorpion, rosette and filling shapes, and the ED I glyptic of the south. Ever since then it has been generally accepted that much of the glyptic of Chuera is ED I. He compared this design to Diyala 256 from an *ED II-III* context at Khafaje. This comparison is exact, and there can be little doubt that the Khafaje seal was imported from Syria. However, it demonstrates not that the Syrian designs with a large rosette belong to ED I, but rather that they cannot be separated from the animals with rigid postures and filling shapes which occur at Chuera. Since Moortgat wrote, material has been published from Ebla, Hama and Mari which confirms a date in EB III-IV for the rosette designs which are closest to our material (Impronte A15, B95, 96, 105 etc.). Therefore Diyala 256 shows that the rigid animals are EB II-III, not that they are ED I.

Having thus ascertained the nature of the comparative material, we can now turn to the *Kleiner Antentempel West-Erweiterung*, which represents the earliest major body of evidence from Chuera. The provenance is a redeposited ashy dump full of seal impressions, and cannot therefore be dated from its stratification (Orthmann 1986a, 63). Of the 26 designs published from this dump²⁴⁵ only one probably certainly belongs to a time earlier than ED IIB (Chuera 1976, 25 fig. 9). Five designs with scorpions or geometric patterns, and an impression with excised triangles probably belong to the glyptic of the earlier third millennium, which may have continued until the end of ED II. This is more than half of the geometric designs of Ninevite V or earlier type reported from Chuera, and most of the remainder have no useful context at all. This may suggest that these geometric seals were out of use by the beginning of the Chuera period in EB III.

The remaining designs are nearly all either of Early Dynastic IIB-III style or else of Chuera style. Again, this is different from the material from the Chuera period, which includes only two Chuera style designs²⁴⁶, thus indicating that the Chuera style is relatively early in the Chuera sequence. On the other hand designs of other EB III Syrian styles, such as the Brak Style, the Syrian Animals style and EB banquets, are much more common in the Chuera period than in the Kl. Ant. W.-Erw., which yielded only one impression of that kind (Chuera 1976, fig. 12). Therefore although it is natural for us to relate the Chuera style to the rosettes and animals of EB III western Syria, this is strictly speaking incorrect as the chronology indicates that it is slightly earlier.

For the chronology of the Kl. Ant. W.-Erw. material, therefore, we have a number of indications. First it shows systematic differences from the main Chuera period material which makes it very likely that it dates to an earlier time. Since the entire Chuera period probably belongs to ED III, and we have ED III material already at the bottom, any time earlier still is very likely to be in ED II at the latest. Second, the western traits of the Chuera style are

244 Note that I am using "Chuera Period" for an ED III pottery period, and "Chuera Style" for an ED IIB seal style. The "Chuera Style" was not used in the "Chuera Period".

245 All published, re-published or mentioned in Chuera 1976 and Moortgat-Correns 1988a, except Chuera 1974, 58 fig. 21.

246 Chuera 1964, 42 fig. 29 (Steinbau I dump), 44 fig. 31 (early Chuera period).

precisely those which we reconstructed for the lost EB II style of inland western Syria. Third, although classic ED II, of the kind known at Mari, is missing from our assemblage²⁴⁷, the ED material would fit well into ED IIB, as is shown most convincingly by the "falling animal" designs (see p. 105). Therefore it seems most likely that the Chuera style belongs to ED IIB, and with it the bulk of the material from the Kl. Ant. W.-Erw. This solution would give us a major period of civilisation at Chuera in ED IIB, and thus provide a likely source era for the Chuera statues, which have proved so difficult to understand in the secondary Chuera period contexts in which they were found.

Unfortunately this tidy theory will not quite work, because of the impression Chuera 1976, 28 fig. 11. This design, with its stags and Imdugud bird, must belong no earlier than ED IIIA, if chronological criteria are to be used at all. However the composition is unusual for that time and I have suggested that the seal may have been a recut ED IIA piece (see p. 106). The arguments for an ED IIB date for the Kl. Ant. W.-Erw. are so convincing that this impression should be explained away, either by suggesting that its stratification was not really within the dump, or else by proposing that the Kl. Ant. W.-Erw. lies mainly in ED IIB, but with a small overlap into ED IIIA²⁴⁸.

The fourth phase at Tell Chuera has third millennium material which is later than the Chuera period. An unpublished Akkadian seal (Orthmann 1994, 121) is reported and there is also an ED III seal (FI 901) which was found in Steinbau V, which is considered to be later than most of the other structures at Chuera. An impression in level 2 of the Lower City sounding (Orthmann 1986b, 56 fig. 34) should belong to the same time. It shows a "stick figures" design which may belong to EB III. This is insufficient evidence to judge the nature of the glyptic after the Chuera period.

We can now turn to the provenances of the other material listed above. The glasis K pottery from Tell Mozan is compared by the excavators (Buccellati and Kelly-Buccellati 1988, 66-7) to material from Brak and Chuera, but is held to be later than the tomb in the outer town (Buccellati and Kelly-Buccellati 1991, 8) which I regard as contemporary with Tomb 300 at Mari. This tomb, in my opinion, represents the end of ED II (see p. 47). Therefore the glasis K deposit should not be earlier than ED III, on the evidence of the pottery.

The Leilan material all belongs to the transitional period Leilan IIIId, in which Leilan became a major city for the first time. I have suggested above, by comparison with the pottery of Mari, that Leilan IIIId belongs to ED IIB (see p. 48). The Leilan glyptic gives a misleading impression of dependence only on Mesopotamia, but the Chuera style may have been deliberately created at the time when cities were being established all over eastern Syria at the end of ED II as one of the ideological processes associated with increasing social complexity (cf. Weiss 1990b, 394-5).

This means that the Chuera Style is earlier than most of the Ebla and Hama sherd impressions, which mainly come from strata contemporary with Palace G. The similarities between these groups, especially the man with raised arms and the rosette, are best accounted for by reconstructing a common ancestor in inland Syria in EB II. I have already shown that such a style should be reconstructed in this place and time because of the relationship between western Syrian glyptic in EB I and EB III (p. 100). A sherd impression has recently been found in a rescue excavation at Tell Jerablus-Tahtani near Carchemish in a context which contained cyma-recta bowls. The stratigraphic information is preliminary, but a mixture with Late Uruk sherds is indicated. The impression shows a large rosette, a quadruple spiral, wedges, a snake, and an animal similar to the Chuera Style animals. Although a date in the Late Uruk period cannot be excluded (cf. pp. 58-59), I favour an EB II date contemporary with the cyma-recta bowls and the Chuera Style. Everything except the quadruple spiral fits well into that context, and the quadruple spiral could be this late. The spiral demonstrates the continuation of the older stylistic tradition in this region, so the sherd exactly fits the reconstruction proposed above²⁴⁹.

2.5 Brak Style

2.5.1 Banquets

Kish: GMA 1437, seal. Two registers divided by row of lion heads. Banquet above; chariot below.

Fara 225, impression. Drinking tube and "balance", harpist with bull-fronted instrument; lower register with animal and bison heads.

Doumet 1992, no. 251, broken seal. Two registers divided by guilloche; bison heads and probably a banquet scene with a seated man and a table.

²⁴⁷ Except perhaps Moortgat-Correns 1988a, 25 fig. 13.

²⁴⁸ Cf. Selz 1983, 157. In the south, the major collection of "ED II" sculpture similar to the Chuera material was found in Khafaje Sin IX, thought to be mainly ED II, but running into ED III.

²⁴⁹ I am very grateful to Prof. E. Peltenburg for allowing me to mention this design, and for showing me his forthcoming paper on it, which will be published in A. Caubet (ed.) *Studies in honor of Edith Porada* (Paris); also *Levant* 28, 1996, 6 fig. 4.

Bought Aleppo: Ash 816 (Impronte Tav. 50:9), seal. Table; structure; guilloche band.

Chuera: Selz 1983, pl. XIII:159, from the Häuser. Harpist; table; hatched band.

Jerablus²⁵⁰: GMA 1332 (Brussels II, p. 53:1392; Impronte Tav. 43:9; FI 74), seal. 2 registers with hatched band; animal row below.

Oylum Höyük: Özgen 1993, fig. 4a, seal, grave 25²⁵¹. Harpist. Man with raised arms.

Oylum Höyük: Özgen 1993, fig. 4b, seal, grave 25. Harpist, table, bird. Man with raised arms.

Oylum Höyük: Özgen 1993, fig. 4c, seal, grave 25. Harpist, table, structure, birds, rosette.

GMA 1736 (Amiet 1963, pl. VI:6), seal (bought Beirut). Two registers; hatched band, rosette. Table; various detached heads.

The Brak style may be defined by the use of special features such as detached animal heads, animal protomes and geometric bands; its iconography, however, is almost exclusively Early Dynastic. The cases with provenance or date listed here are so rare that I shall not discuss the distribution of the type without reference to the material from Brak itself. Although the table is not always present in the banqueting scene, it is much more common than in Syrian or Mesopotamian banqueting scenes of ordinary Early Dynastic style. The recent discovery of a hoard of seals at Oylum Höyük has shown how much the harp was favoured by the style, and the detail seems to suggest that we may have there the animal-fronted harp, as in the Fara impression²⁵². Özgen 1993, fig. 4a is especially interesting in giving us the Brak Style banqueting scene combined with a man raising both arms in the ancient Syrian manner. This seal thus suggests the existence of a special sub-group, probably to be located in inland western Syria, which combined native and Brak style traditions. It is possible that the Chuera Style influenced the Brak Style, as it also had hatched bands, the harpist and the man with raised arms, but it does not show any ED III traits and the Chuera Style banquet does not include the table.

2.5.2 Unbordered geometric bands, interrupted by detached heads

GMA 1733 (Amiet 1964, pl. IX:3), seal. Two registers divided by herringbone band and frontal head; crossed animal friezes, plant.

GMA 1737, seal. Two registers divided by swirl and herringbone band; animals and rosettes.

GMA 1735 (Amiet 1963, pl. VI:2; Impronte Tav. 50:1), seal. Two registers divided by herringbone band and frontal heads; crossed animals.

Louvre A54 (GMA pl. 85bis O; Amiet 1963, pl. VI:3; Impronte Tav. 50:2), seal. Two registers separated by herringbone band; crossed animals frieze, Imdugud bird.

"Amuda" (bought Beirut): GMA 1734 (Amiet 1963, pl. VI:1), seal. Two registers separated by herringbone band; crossed animals friezes and plant.

Hama K, not in situ: Copenhagen 115, seal (FI 75, GMA 984); two registers separated by herringbone band and bison head; crossed animals friezes.

Byblos II pl. 194:17390, broken seal. Two registers separated by hatched band; eagle and animals.

Impronte Tav. 50:3, seal (Fribourg, Biblisches Institut). Two registers divided by herringbone band; crossed animals friezes.

The last banquet scene listed (GMA 1736) has a particular composition in which, as is normal in the Brak Style, the field is divided into two registers which are separated by a geometric band, but the band is itself interrupted by a rosette or head. This composition occurs also on the seals in the second list, which have special peculiarities within the general framework of the Brak Style. The cutting style is minute and fussy, with more engraved linear detail and less of the simple shapes and drilled forms of the standard Brak Style seals. A particular feature is the way in which the herringbone band is not limited by horizontal lines in the normal way, and the animals' manes and fleeces are richly elaborated. The design is nearly always one of crossed animals, sometimes with extra details such as large plants. It is almost as though some Brak Style craftsmen had obtained some seals of the best ED IIIA style of the Royal Cemetery of Ur and tried to apply some the ideas they learnt to the much smaller field of design offered to them by the Brak Style. Since this group is not attested at any of the main sources of ED III glyptic in Syria, including Brak, it may be characteristic of some centre in the north (GMA 1734, said to come from Amuda) or west (Copenhagen 115: Hama) whose glyptic is little known. We really cannot guess where at present.

250 Provenance not mentioned by Speleers.

251 The cemetery contained EB III-IV caliciform pottery, see Özgen 1989-90, Özgen and Carter 1990.

252 Which should not be dated as early as ED I. Porada (1991, 171) supports an early date on account of the detached heads, but in Syria these are not restricted to ED I and, as Porada notes, other features of the design would be surprising then.

2.5.3 Animals and contests.

- Doumet 1992, no. 247, seal. Two registers separated by a herringbone band; crossed animals.
- GMA 1732 (Amiet 1963, fig. 16), seal (bought Beirut). Two registers divided by herringbone band; crossed animals, eagle, bison heads.
- Yale 367 (Impronte Tav. 50:6), seal. Two registers divided by herringbone band; heads of lions, animals, bison; animal protome.
- Marcopoli 338, seal. Two registers separated by herringbone band; rosette and animal heads.
- Jazira: GMA 1731 (Amiet 1964, pl. IX:2), seal. Two registers; herringbone band. Lion heads; humans in pairs.
- Mari Ishtar pl. 65:329 (GMA 964), bone seal, from disturbed context. Two registers; crossed lion frieze and bison and lion heads.
- GMA 1741 (Amiet 1963, fig. 22), seal (bought Beirut). Frontal heads, rosette.
- Suleimeh 101, seal, Tell Halawa (Hamrin), OB context. Humans, birds, lion heads.
- Suleimeh 21, seal (Level VII = Early Akkadian). Animals, lion heads, etc.
- Genouillac 40 (GMA 986), seal. Two registers divided by row of lion heads; humans and animals.
- Suleimeh 20, seal (Level VIII = ED). Row of humans, lion heads, "hieroglyphic" signs?
- Chuera 1976, 29 fig. 12 (GMA 1745), impression on peg sealing (Kleiner Antentempel West-Erweiterung). Two registers; rosette and "hieroglyphic" symbols.
- Brussels II p. 137:1459 (GMA 1275), seal. Animals and bird (-demon?); "hieroglyphic" signs?
- Bought north Syria: Brussels II p. 137:1490 (GMA 1401; Impronte Tav. 50:7), seal. Bird-demon, eagle and animals.
- Fara 164, impression. Eagle, animals and human; guilloche band²⁵³.
- Khafaje: Diyala 259, seal (ED II-IIIa context), two registers divided by hatched line; scorpions and animals.
- Bought Aleppo: Ash 777 (Impronte Tav. 50:8), copper seal. Two registers; contesting figures; lions.
- Arsameia: Moortgat-Correns 1965, fig. 1. seal. Animal rows in two registers; denticulated band.
- Ebla IIB1: Impronte pl. 43:8, wooden seal, broken, finely engraved. Animals; rosette; scorpion(?); snakes(?).
- Khafaje: Diyala 362 (GMA 978), impression, surface. Lion and bison heads; scorpions.
- Fara 455 (GMA 988), impressions. Two registers, lion heads, animal protomes and head of hairy hero.
- Oylum Höyük: Özgen 1993, fig. 4e, seal, grave 25. Two registers divided by hatched band; human, animals, scorpion.
- Oylum Höyük: Özgen 1993, fig. 4d, seal, grave 25. Bird, animal, rosette, herringbone band.
- Ishida 1991, 35 no. III-4-3, seal, no provenance; contest scene above, row of protomes below.
- Anavian 39 (Lambert 1986, Taf. 12:4). Two registers; crossed animals and protomes.
- "Ebla": Aleppo II 347, seal. Two registers divided by row of stars; animals.

The next group is Brak Style seals with normal cutting, which do not have banquet scenes. The first few seals listed have similar designs to the group with interrupted geometric bands, but without any special features. Several of them show friezes of crossed animals, which we find also in the extraordinary bone seal GMA 964 from Mari. The composition and design elements of this seal are all normal for the Brak Style, but the engraving is even more massive than usual and the dress of the human is unique for this style. Amiet (1985a, 477-8) suggests that it may be ED II or archaising ED IIIa. I am not inclined to date any seal in the Brak Style earlier than ED IIIa, since so many of the seals show clear ED IIIa traits such as frontal lion heads and the stag, so I prefer to treat such evidence as we have which suggests otherwise as misleading. Thus I suspect the Hama K provenance of Copenhagen 115²⁵⁴; and in the case of this Mari seal, I think it is most likely that the Syrian cutter imitated an ED I-II Mesopotamian seal without knowing how old it was. We know that much fine glyptic reached Mari from an early date. The Brak Style does not seem to have been at home at Mari, and this may explain why GMA 964 is so unusual.

Suleimeh 20, Brussels 1459 and Chuera 1976, fig. 12 are a small group characterised by "hieroglyphic" signs²⁵⁵. It is questionable whether these seals should be counted with the Brak Style, as they lack geometric bands, but they include nothing which would seem unusual in the Brak Style, the drilled stylisation is close to Brak Style seals like 195-6, and Suleimeh 20 has detached heads as well. The main reason for including them here, however, is that Brak 211 is obviously engraved in the Brak Style. There is no consistency among the main designs of the seals: men with pots in the Brak seal, a row of men at Suleimeh, animals at Chuera and a lion and animal in the Brussels seal. It is therefore likely that the hieroglyphic "text" conveys information independent of the main scene. The range of signs is consistent, though each "text" is probably different. Most distinctive is the ringed rosette in the Chuera, Brak and

253 Cf. Lambert 1986, 37 fig. 4?!

254 It was not found *in situ*.

255 See also Moortgat-Correns 1994.

Suleimeh seals. On the one hand, the rosette is a familiar symbol in the Brak style, though never ringed like this; on the other, it is hard not to think of the DINGIR sign in the context of Early Dynastic civilisation. The Chuera and Brak seals have a kind of large arrow which could perhaps be related to the familiar star-spade of the Early Akkadian seals. A sign related to the star-spade is not unknown in late ED glyptic (GMA 1776); and on the other hand the Brak Style is known, from the Brak evidence, to have flourished at least as late as the Early Akkadian period. The Suleimeh and Brussels seals both have a crescent, a symbol normally absent from the Brak Style; while the Chuera and Brussels seals have a special symbol like an X on its side with closed ends. The Brussels and Brak seals both have a cross-hatched area, though this looks more like a cuneiform sign in the case of the Brak design. Each seal also has one or two signs which do not occur on any of the others.

It is difficult to understand this material without further evidence. Perhaps it was an experiment that failed; against this interpretation is the lack of close stylistic uniformity among the seals. It is most unlikely that they were all engraved in the same workshop, though as remarked above they do all seem to fit within the general sphere of the Brak Style. We know, from the evidence of Brak, that the Brak Style was associated with an advanced system of administration which was conducted inside a major public building; but we also know that the operators of this system were able to use normal cuneiform, even if they did not normally do so. It is possible that an attempt was made to adapt cuneiform for local use, perhaps in an effort to simplify a very complicated writing system²⁵⁶; but it proved in practice easier to use the cuneiform of the south, perhaps because it was already well-established at Mari.

We have already seen that the Brak Style banquets of Oylum Höyük show traces of the ancient glyptic tradition of western Syria. The two seals from that site listed here are stylistically linked to those banquets by their birds and rosettes, and also to a limited number of other designs which seem to represent a degeneration or simplification of the Brak Style. The motives are a reduced set from the Brak repertory, with a special emphasis on birds; the field is laid out in horizontal bands; and the scenes are just rows of items with no organic structure. Such scenes are of course common in the classic Brak Style, in the form of rows of lion or bison heads, or of animal protomes; but those symbols refer directly to the central interests of the style and are otherwise unintelligible. The group presently under discussion show no such direct reference to more organic scenes. Apart from the Oylum Höyük seals, we may notice a seal said to be from Ebla, Aleppo II 347, where the geometric band has been reduced to a row of stars, and several designs from Brak (260-263). This makes it impossible to suggest a region of origin, except generally in inland Syria; while for date we are at present reliant on Brak, which may suggest that the type is later than the main Brak Style (see p. 120).

2.6 Ebla style

Ebla IIB1: GMA 1756 (FI 128, Damascus 20), impression.

Ebla IIB1: GMA 1757, impression.

Ebla IIB1: GMA 1758 (FI 129), impression.

Ebla IIB1: FI 127, impression.

Ebla IIB1: Damascus 21, impression.

Susa 1464 (Amiet 1985b, fig. 2), impression.

Knossos: FI 130, lapis lazuli seal with gold caps.

The Ebla Style is the only Syrian glyptic style of the third millennium whose quality can be compared to the best seals of southern Mesopotamia. The material comes from bullae found in Palace G, and there are said to be 15 designs, but there is still no formal publication (Matthiae 1980, 86). Surprisingly for a style so technically accomplished, it shows almost no originality of composition, almost everything coming either from the Brak Style or from the ED IIIB of Sumer²⁵⁷. A possible explanation for this may be that it was invented very shortly before the destruction of Palace G, and that the workshop was dispersed at that time. Mazzone (1993, 403) has noticed a "late and rapid" increase in royal activities at Ebla, and in such circumstances nothing is more likely than a new art style. Had Sargon failed to overcome the rebellion against him the same fate might have terminated the Akkadian style which originated at about the same time.

All of the Ebla Style designs are contest friezes, essentially of standard ED IIIB type with vertical non-crossing²⁵⁸ figures including bull, bullman, lion with frontal head and human figures. The contest often has a central figure with

256 Cf. not much later in Elam: Carter and Stolper 1984, 7.

257 In this it differs from the Old Syrian glyptic which emerged in comparable circumstances a few centuries later: though Old Syrian borrowed much, it always had its own distinctive iconography.

258 Except the Knossos seal.

bilateral arms²⁵⁹, but the compositions do not imitate the symmetry of the ED IIIB "Group of Five" scenes. Although this scene is common in the "Trésor d'Ur", it is more likely that the ED IIIB influence on the Ebla Style came directly from some centre in the south than from Mari. GMA 1756 and 1757 show a kneeling man raising a circular pattern of detached heads, similar to southern ED IIIB designs such as GMA 1063 (seal of Mesannepada) and 1081.

Several designs have thin bands above and below filled with narrow herringbone patterns or detached heads. These are obvious references to the Brak Style, and perhaps even to the group with unbordered herringbone bands, which had a special interest in contest friezes and in the internal decoration of the figures; but where that group exploited ED IIIA forms the Ebla Style is linked clearly to ED IIIB, so no direct derivation is possible. Nonetheless it provides a hint that the kings of Ebla did not just import craftsmen from Sumer, but perhaps sent their best seal-cutter to Sumer, or had him learn from a visiting expert.

The only consistently original feature lies in the human figures. They usually wear a garment with horizontal tiers of flounces. Such a dress is not unknown in Sumer (GMA 1141, 1372) and it is normal in ED III sculpture, but humans in ED III Sumerian contest scenes are usually nude. More remarkable is the frontal face often given to these Ebla figures. In ED glyptic, the frontal head is only associated with nude figures. A dressed figure with a frontal head, especially in the centre of the scene (FI 127, GMA 1757) can only remind us of scenes such as GMA 1357, or to take a clearly Syrian case, GMA 1353, both with the frontal head and flounced dress, but seated in a ritual context. We may have here a precursor of the Syrian Goddess of the second millennium²⁶⁰. Therefore the Ebla Style seems to have fused the Syrian Ritual scene with the ED IIIB contest scene, in a manner which would make no sense in Sumer, but which must have been reasonable at Ebla.

An even more intriguing hint is given by what may be the "Etana" scene in the upper register of the Knossos seal. Amiet (1980, 134) and Collon (1987, 178) have mentioned Early Dynastic seals which show an association of eagles and snakes which may refer to this myth; but I do not know of any representation earlier than the Akkadian period which shows the man riding the eagle such as may occur on our seal. In my opinion, this is the sole feature of any piece of glyptic related to Ebla IIB1 which shows any trace of Akkadian influence²⁶¹.

2.7 EB Banquet scene

Chuera 1985, 35 fig. 11, impression, "West Temple" pavement (probably ED III).

Chuera 1985, 37 fig. 12, impression, "West Temple" pavement (probably ED III).

Hama J6: Fugmann 1958, fig. 65 (Impronte B111), sherd (later Amuq I).

Hama J2: Copenhagen 124, seal (late Amuq J).

Gawra VI: Gawra I 65, seal (final Akkadian).

Tarsus II fig. 397:9 (Impronte B138), sherd, "EB III" (final Amuq J).

Alalakh: Ash 840 (Collon 1982a, no. 101), seal (late context).

Alalakh: Collon 1982a, no. 6, seal (late context).

Ash 775, seal, bought Aleppo.

This small group is important because it represents the only clear transition in native glyptic from the Early Bronze Age to the Middle (see p. 147). The stratification suggests that it began later than any of the other native EB III-IV styles, though examples from Chuera and Hama indicate that it existed before the end of EB III. A table with a high conical top or with a conical pile of items on it is shown on an impression from Chuera (Chuera 1985, fig. 11), where it may be a recutting drawn over the original design of a man drinking from a tube, and there is another case in Marcopoli 350. It cannot be doubted that this kind of design was derived from Early Dynastic banquets, which we have seen (p. 115) were assimilated into eastern Syrian glyptic as early as the end of the Ninevite V period (Leilan IIId). Seated figures were not part of the older Syrian figurative tradition. The banquet is common in the Brak style, where the table is especially favoured: this is a peculiarity of Syrian ED glyptic (Selz 1983, 437). The group collected here is probably derived from this tradition, but with a return to the simple compositions and coarse engraving which were more typical of native Syrian glyptic. The Alalakh seals Collon 1982a, no. 6 and Ash 840, difficult to date, have been discussed by Collon who suggested a range of possibilities²⁶².

259 Bullman: GMA 1758; frontal human(?): GMA 1757, FI 127, Susa 1464.

260 Compare the figure on the Knossos seal with the Ebla ritual basin Orthmann 1975, pl. XLIX.

261 Dr Joan Aruz tells me that the Knossos seal has been recut. This may account for this late feature.

262 Collon 1982a, 38, 114, no. 101. Mari Ishtar pl. 67:536 might possibly have originally resembled Ash 840, but it has been more thoroughly recut with lines across the figures(?).

Ash 775 shows a rather different line of development: the man with a drinking tube and the harpist come from the Chuera/Brak tradition, but the cutting style is related to the Syrian Animals style, like Brett 100. Gawra I 65 probably represents an independent provincial derivation from Mesopotamia in Assyria.

In Copenhagen 124 and the Tarsus sherd we find another important component of the last Syrian EB style: the use of hatched boxes or ladder-motives as terminals²⁶³. This may go back to the plant-like motive which is common on the EB III clay seals (see p. 101), such as Impronte A10 and A43, and which occurs on Chuera 1985 fig. 12. The Selenkahiya seal, FI 133, is especially important in this respect. It has one of these plant/box motives, combined with a seated man as in a banqueting scene, but also tête-bêche humans which connect it with the tête-bêche sherd style. The second Selenkahiya design²⁶⁴, apparently showing similar characteristics, suggests that it was perhaps in that region that the banqueting scene with a table, derived from ED III eastern Syria, and the hatched box from western Syrian EB III clay and sherd styles, were combined in Amuq J to form a new local style. The Hama sherd Impronte B111 may be another example²⁶⁵. A series of sherds from Palestine may also be related²⁶⁶: standing and seated figures are associated with a hatched panel. In this series, a figure with a double tassel or horned headdress is strikingly similar to our 484 and 485, thus providing another link to the tête-bêche sherd style.

These designs are by no means stylistically unified, but they do show the sources from which the earliest Old Syrian style was probably derived²⁶⁷.

3. Akkadian and post-Akkadian glyptic

3.1 Akkadian contests

3.1.1 Early Akkadian

Assur: VR 162, seal.

Nuzi pl. 55M, impression on both sides of a clay label or jar sealing with an inscription mentioning sesame (Meek 1935, XVIII, no. 3); in stratum with Late Akkadian tablets.

Gawra I 51, seal (Gawra VI = final Akkadian).

Gawra I 52, seal (Gawra VI = final Akkadian).

Gawra I 53, seal (Gawra VI = final Akkadian).

Gawra I 56, seal (Gawra VI = final Akkadian).

Gawra I 54, seal (Gawra VI = final Akkadian).

Tell Habuba Kabira: Strommenger 1973, 66 fig. 27, lower, impression on anepigraphic tablet²⁶⁸.

Nuzi pl. 119A, seal (Mitannian Temple E).

VR 162, Gawra I 51, 52 and the Nuzi impression are all continuations of the Early Dynastic crossed animals scene. None of them show any sign of Late Akkadian traits, so I think they may safely be assigned to the Early Akkadian period. The bison, whether with frontal head in the earliest Akkadian glyptic, or with profile head in the middle of the Akkadian period, is another criterion for the period before the classic Late Akkadian age in the time of Naram-Sin. We see a frontal bison in Gawra I 56 and profile bisons in the Habuba impression and in Gawra I 54. The Habuba impression in particular shows the Early Akkadian interest in maintaining the organic unity of the frieze, as opposed to the reduction into pairs of Late Akkadian glyptic. Although the Habuba design is in fact arranged in pairs the symmetry of the bisons looking back at each other binds most of the design together in much the same way that a pair of crossed animals would do.

Among these seals only VR 162 and Gawra I 54 show the classic Akkadian arm posture with the elbow raised at an angle. Though this posture can occur from the beginning of the Akkadian period it is not common in the earliest phase. Gawra 53 is in all respects except the stylisation similar to an Early Dynastic contest and I therefore include it here. Caprids occur in the earliest Akkadian contests but are rare thereafter.

263 Also Mazzone 1992a, Tav. XLIII:7 (Guimet 22); cf. the impression Alkim 1969, p. 288.

264 Van Loon 1973, p. 148, unpublished.

265 The drawing given by Fugmann is misleading, and Mazzone's photo is unintelligible because the design is rolled twice over the same area. I have seen the object and there is a standing man, a plant-like object, and a cross-hatched area, all engraved in a coarse linear style.

266 Ben-Tor 1978, IIC-3,4; see now Ben-Tor 1992b for other sherds and the seated figure. I owe this reference to Pirhiya Beck.

267 The lack of clear Akkadian stylistic influence is remarkable, but Amiet 1992, no. 8 shows a bucket-carrier in the Akkadian manner, cf. Ash 835, Diyala 678.

268 I am using a colour postcard bought at the Charlottenburg Museum in 1993.

Nuzi pl. 119A is perhaps not certainly dated, but the scorpion under double lines (probably intended for an inscription which was not included) and the hero's arm posture would fit an Early Akkadian date.

Where they have provenances these seals are all dated to the Late Akkadian period or even later, so that unfortunately they do not contribute to the relative chronology of north and south at this important moment. Their strongly eastern distribution is noteworthy and makes the Habuba impression the more surprising. But there may be evidence for Akkadian glyptic in Syria from the beginning of the period (quite apart from the material from Brak) in the seals listed below from Tell Bi'a and Munbaqa which have a star-spade (cf. p. 28).

3.1.2 Late Akkadian contests

Nineveh: Thompson and Mallowan 1933, pl. 66:1, impression.

Mari: Parrot 1952, 198 fig. 9, seal.

Mari: Parrot 1962, pl. XII:1, seal.

Unfortunately none of these objects comes from an informative context, but all are good-quality seals in the classic Late Akkadian style. Two of them are inscribed. As with the early Akkadian contests, it is regrettable that there are so few. The bulk of the Akkadian glyptic from Syria does not show contest scenes; and it is hard to date scenes of other types. The potential for dating Akkadian seals within the period is thus not available to us to help in the problem of the relative chronology of Syria, only (in some cases) the bare presence of Akkadian material.

3.2 Other Akkadian scenes

3.2.1 "Battle of the Gods"

Selenkahiya: Van Loon 1979, 110 fig. 21, impression (Phase III = Amuq I/J trans.).

Tell Munbaqa: Machule 1986, 123 Abb. 30, shell seal (Munbaqa EB IV = Amuq J?²⁶⁹).

Tell Hamad Aga as-Sagir (North Sinjar plain, Iraq): Spanos 1992, Abb. 17, shell seal (Phase 12 grave = Ur III or earlier?²⁷⁰).

3.2.2 Ea

Tell Bi'a: Strommenger 1991, 19 fig. 10, seal (Akkadian cemetery). Gods fighting eagle²⁷¹; star-spade.

Tell Bi'a: Arns 1984, 55 Abb. 33, seal (directly under surface). Judgement of Anzu.

Munbaqa: Machule 1988, 44 Abb. 27, seal (late context). Judgement of Anzu.

"Ugarit"²⁷²: Aleppo II 349, seal. Judgement of Anzu.

Gawra I 62, seal (Gawra VI = final Akkadian). Judgement of Anzu.

Gawra I 57, seal (Gawra VI = final Akkadian). Ea enthroned.

3.2.3 Shamash

Assur: Andrae 1922, 103 Abb. 76a, Taf. 59, impression (Assur E = Ur III). Shamash rising.

Assur: VR 221, seal. Shamash rising.

Gawra I 63, seal (Gawra VI = final Akkadian). Shamash rising.

Rimah: Parker 1975, no. 6 (FI 104), seal. Shamash enthroned.

Ugarit: Amiet 1992, no. 4 (Schaeffer-Forrer 1983, p. 51-2; Damascus 22), seal (MB I context). Shamash enthroned.

Bought Aleppo: VR 202, seal. Shamash enthroned.

269 Cf. Thissen 1989, 204.

270 Phase 11 is transitional between Taya Ware and Habur Ware, a combination which does not occur at Taya (Reade 1968, 257). Phase 11 is separated from Phase 12 by an ash layer 20 cm thick (Spanos 1992, 102) which might imply a gap in the occupation. The Phase 12 pottery is generally similar to that of Taya VIII-VII, i.e. Late-Akkadian - Ur III, but I do not see any criteria to date it more finely.

271 Cf. Ash 328 from Kish.

272 The provenance may be doubted as it is not included in Amiet's catalogue (1992).

3.2.4 Various gods and presentations

Gawra I 64, seal (Gawra VI = final Akkadian). Seated god between "gates".

Mari: Parrot 1954, pl. XV:1; Parrot 1974 pl. 31 (Damascus 23), seal with bronze cap (Temples anonymes; context perhaps Ur III?²⁷³). God enthroned on mountain; vegetation deities.

FI 642 (Lambert 1987b), said to come from Amuda, seal, very good quality. Presentation to a goddess enthroned on a mountain.

Assur: VR 195, seal.

Gawra I 58, seal (Gawra VI = final Akkadian).

Gawra I 61, seal (Gawra VI = final Akkadian).

Nuzi pl. 55 F, P, shell seal mounted on pin (from grave belonging to strata which produced Late Akkadian tablets). Star-spade.

Nuzi: Porada 1947, no. 955, impression on Mitannian tablet.

Nuzi: Porada 1947, no. 956, impression on Mitannian tablet.

Tell Munbaqa: Machule 1986, 133 Abb. 36, impression on Mitannian tablet. Star-spade.

Tell Bi'a: Strommenger 1993, 16 Abb. 12, impression (Akkade-Bau²⁷⁴).

Tarsus II fig. 397:12 (Impronte B132), impression on sherd (Tarsus "EB III" = Amuq I-J or a little later).

3.2.5 Banquet scene

Mozan: Weiss 1994, 133 fig. 19, impression.

Gawra I 60, seal (Gawra VI = final Akkadian).

Gawra I 66, seal (Gawra VI = final Akkadian).

Amuq fig. 382:6, seal, out of context.

Apamea(?): Du Mesnil du Buisson 1927, 24 fig. 61, seal drawn at Mishrife but said to come from Qal'at al-Mudiq.

3.2.6 Various Akkadian

Nuzi pl. 55S, seal (from strata with Late Akkadian tablets). "Bull and winged gate" scene.

Gawra I 67, seal (Gawra VI = final Akkadian).

Taya III: Reade 1973, pl. 70b, seal.

Most Akkadian glyptic comes from sites in Iraq and from Mari, but a significant amount has been found at sites on the Euphrates such as Tell Bi'a, Munbaqa and Selenkahiya. The material from Ugarit and other western Syrian sites should probably all be regarded as strays. The distribution thus suggests dissemination along the Tigris and the Euphrates, to Assur and Mari and further upstream, but not much into the hinterland. The distribution of Akkadian seals shows that the style was less thoroughly assimilated in Syria than Early Dynastic glyptic had been. This picture is misleading, as is shown by the large Akkadian corpus from Brak, and apparently now from Mozan as well (Weiss 1994, 133); but it may be suggested that Akkadian rule did not extend much to the west of this. None of these seals shows any sign of a local Syrian style, in stark contrast to the ED situation, so all of them were probably distributed at a high level of society as part of the interactions of the governing class either subject to Akkad or in communication with it. In the Early Dynastic period there is much more of a feeling that the southern style became generally acceptable with various compromises with older Syrian traditions.

273 Parrot 1954, 153-4 refers to an early second millennium gypsum plaque, unpublished, found near the seal. This could be as early as Ur III in style, though not likely earlier. Margueron 1985, 492 suggests that the temples anonymes are earlier than the Sahuru and the Ninhursag temple which may be Ur III.

274 Contemporary with the Akkadian cemetery which is later than the Old Palace (contemporary with Ebla Palace G) but still within the stoneware period.

3.3 Final Akkadian - Ur III period and derivative seals

3.3.1 Final Akkadian

Mari Ishtarât pl. 75: 2221, seal, broken (OB? level above the temple of Ishtarât).

I describe this seal as final Akkadian by comparison with the seal dated to Shudurul, Diyala 701; but the type does not necessarily have to be so late.

3.3.2 Derived from or related to Akkadian

Tilmen Hüyük: Alkim 1969, p. 288, impression (Level IIIe = Akkadian?²⁷⁵).

Amiet 1963, fig. 31 (bought Aleppo).

Assur: VR 189, seal.

Assur: VR 203, seal (Erdgrab, together with VR 248).

Gawra I 59, seal (Gawra VI = final Akkadian).

Gawra I 71, impression (Gawra IV).

Mari: Damascus 24, seal.

Alalakh: Collon 1982a, no. 7, seal (MB context).

Byblos II pl. 196: 7934 (Impronte B63), impression on sherd.

Taya VII: Reade 1971, pl. 25b (Ur III period)

Glyptic adapted from Akkadian models is strikingly rare in the north. VR 189 and 203 were found in the same grave and they are probably therefore roughly contemporary as seals from graves usually are. VR 203 is a crude version of an Akkadian presentation while VR 189 is like Ash 125 from Kish which is not probably as early as Buchanan suggested. Both seals may well belong to the "Post-Akkad B" group of Dittmann (1994), which probably dates later than Naram-Sin and earlier than Ur III (see p. 17). Gawra I 59, like VR 203, has the worshipper's arm posture which seems to be a marker of this group (Collon 1982b, 111). Gawra I 71 and Damascus 24 may be of similar date. The "Taya ware" in Gawra VI indicates that this stratum lasted at least until the final Akkadian phase, if not later, so it is not surprising to find glyptic of this time there. The Alalakh seal is even further removed from normal Akkadian style, but Collon (1982a, 39) gives reasons to assign it here.

Amiet 1963, fig. 31 is a copy of a "bull and gate" design. It is not of course certain that it was made in Syria, but the seated figure resembles the EB banquet scene series and the earliest Old Syrian seals continued an interest in the bull. It therefore makes sense as a rare intermediary between EB and Old Syrian glyptic (see p. 147). The Tilmen impression is very peculiar with an animal frieze reminiscent of Early Dynastic or early Akkadian designs, and a seated bearded man who cannot surely be earlier than Akkadian, but who could be much later. The strange frame on which the man is sitting is perhaps comparable to Brak 508, making the seal a hybrid Akkadian - EB style piece; but it could equally plausibly have been made 300 years later. The Byblos sherd is also very strange. Mazzoni (1992a, 97) has related it to provincial Akkadian sculpture in Syria and suggested links to the early second millennium sculpture of Ebla, so it may also be a rare link between the Early and the Middle Bronze Age.

The Taya seal shows nothing but an inscription, which may date to the early Akkadian period from the palaeography; but the criteria are not reliable for an object of this kind. Inscriptions are generally rare in Syrian seals of the later third millennium, being largely confined to designs of southern type, apart from the shakkannakku glyptic of Mari.

3.3.3 Ur III leading goddess presentations

Nuzi: Porada 1947, no. 957, impression on Mitannian tablet (inscription of Ibbi-Sin).

Assur: VR 250, seal.

Assur: Andrae 1922, 103, Abb. 76, impressions of several seals from level E²⁷⁶.

Mari: Damascus 25, seal.

Kültepe: Teissier 1994, nos. 584, 585, impressions on tablets (Karum 2 = c. 1900 B.C.).

Kültepe: Teissier 1994, 61, impression of same seal as Ash 436 (which is probably from Umma).

Kültepe: T. Özgüç 1986, fig. 3-42, lapis lazuli seal (surface).

²⁷⁵ A Syrian Bottle of classic alabastron type was found in level IIId, i.e. above IIIe. If this bottle is *in situ*, and if such bottles were not made after the end of the Akkadian period (both uncertain factors), then the impression is not likely to be later than Akkadian.

²⁷⁶ I am much obliged to Dr. Klengel-Brandt for showing me this material which she will re-publish. Andrae's drawings are not reliable.

Kültepe: T. Özgüç 1986, fig. 3-43, lapis lazuli seal (surface).
 Byblos I pl. 125: 4183, lapis lazuli seal (Obelisk Temple area²⁷⁷).
 Byblos II pl. 193: 11465, seal.
 Byblos II pl. 193: 11769, seal.
 Byblos II pl. 193: 11770, seal.

3.3.4 Shakkannakku glyptic: see Beyer 1983, 1985 and:

Mari Palais pl. 39:1400 (FI 119), haematite seal.
 FI 120 (Collon and Finkel 1987), seal, no provenance, with Mari inscription.
 Assur: Andrae 1922, 103 Abb. 76b, impression, Assur E²⁷⁸.
 Kültepe: Teissier 1994, nos. 576, 577 (Teissier 1990); impressions on tablets (Karum 2 = c. 1900 B.C.).

3.3.5 Other Ur III designs

Amuq fig. 381:2, seal (out of context).
 Mari Ishtar pl. 67:751, seal (OB house).
 Kültepe: Bittel 1939-1941, 301 Abb. 5, lapis lazuli seal.
 Kültepe: Balkan 1957, p. 2, fig. 12, lapis lazuli seal ("Alishar III pottery").
 Seal of Tehesh-atal the scribe: FI 121 (BM II 451), seal.
 Seal of king Tishatal: FI 122 (de Clercq 121), red jasper seal.

Ur III glyptic from northern sites shows much the same range of subjects as we might expect, with a heavy concentration of leading goddess presentations. Except for the shakkannakku glyptic, which is a local product of Mari (Teissier 1994, 59-60), the engraving quality is usually poor, though some seals re-used later at Kültepe are finely engraved (Teissier 1994, no. 584). Glyptic probably made for the Hurrians of the north (Collon 1990) includes a standard Ur III design (FI 122), probably made in the south, and a derivative seal, which may have been made in the north as a copy of an Ur III seal (FI 121). This would be a very rare case of such derivation²⁷⁹. Ur III contest scenes are not common generally and are especially rare in the north, Bittel 1939-41, Abb. 5 being the only case known to me.

The distribution of this Ur III material in the north is remarkable, and quite unlike the distribution of Akkadian glyptic. Where the Akkadian seals formed a linear pattern along the two rivers, with probably a wider dissemination in the Khabur, the Ur III glyptic has a punctuated distribution, virtually all of it coming from Mari, Byblos, Assur and Kültepe. It is entirely absent from Brak, with the possible exception of 401, unlike the Akkadian seals which are common there. Only the glyptic of Tishatal suggests that the style was known in the Hurrian hinterland. We note also that many of the seals are of relatively poor quality, made of lapis lazuli²⁸⁰. This distribution rather suggests diplomatic gifts of precious material in a restricted network of sites which participated in a system. But we cannot separate this data from what we know of the Old Assyrian trade in the early second millennium B.C. Except at Mari and Assur, the Ur III material has not been found in contemporary contexts. Therefore either the Assyrian traders of the second millennium transported some old seals to Kültepe, or else the seals were taken there at an earlier time, perhaps during an earlier phase of the trade (cf. Waetzoldt 1990). If Durand's (1985) chronology is correct, on the other hand, there is direct evidence for the shakkannakku glyptic in the Ur III period at Mari, which must have been a golden age there with close relations with Ur, though there is no evidence for its subjection to Ur (Lafont 1987, Durand 1985, 148, 156-7). Assur E, which was under the direct rule of Ur, was probably exactly contemporary as is indicated by Andrae 1922, fig. 76b. So some link existed between Assur and Mari already in the Ur III period, as is shown by the shakkannakku style seal-impression from Assur. Whether we should see these cities as the centres of a trading network reaching outwards to Byblos (and Egypt) on the one hand, and to Kültepe and Anatolia on the other at that time remains uncertain. It is equally possible that the further spread of Ur III artefacts, some of them utilised as seals, others perhaps just as raw lapis lazuli, took place in the twentieth century. Thus either the export

277 Saghih 1983, 19: Phase J; Dossin 1969: found near the Ur III tablet. Saghih (1983, 64) says this tablet was found in the Phase J destruction level.

278 Andrae's drawing is misleading.

279 Collon (1990, 131, 133) gives reasons why both seals could be dated rather later. Their interpretation should take into account the complex and fragmentary historical evidence for the persons named Tishatal or the like, which I shall not discuss (see Collon 1990, Matthews and Eidem 1993, 203).

280 For which the best evidence is the Tôd Treasure (Porada 1982). It is notable that only one of the seals in this treasure, fig. 3, is engraved in a western style. Contrary to Porada, who inclined toward a source at Ebla or Mari, I see direct transmission from Mesopotamia as most likely. The two seals with the ED festoon design (fig. 2), for example, are of a type which is not attested in Syria.

from Mesopotamia of the Ur III seals from Kültepe and Byblos is contemporary with the use of antique Ur III seals on the *karum* 2 tablets, or they were transported earlier in a precursor of the Old Assyrian trade for which we lack direct evidence (cf. Teissier 1994, 61-2). The seal Balkan 1957, fig. 12 from Kültepe is especially interesting here, as it has an Ur III design with an inscription mentioning Assur; but it could have been transported to Anatolia in the Old Assyrian period when it was already an antique.

In any case the evidence suggests that Ur III seals were not made anywhere in the north, except at Assur and Mari, with extremely rare possible exceptions like FI 121. Ur III probably had an impact on the earliest Old Syrian glyptic of the second millennium B.C., which continued the tradition of the EB banqueting scenes, but we have no reliable dates for this group and therefore we cannot assess whether this Ur III influence was applied in the third millennium or in the second (cf. Teissier 1984, 62f.).

IV. THE GLYPHTIC OF TELL BRAK

A COMMENTARY

The seals and seal impressions from Tell Brak belong to many different artistic traditions and styles, covering the greater part of the development of Syrian seals of the Early Bronze Age which was described above. The catalogue numbers are ordered according first to style and then to subject, and in this section this order is discussed in relation to comparable seals from Syria and elsewhere.

1. Stamp seals

This volume does not include most of the stamp seals from Tell Brak. None of the stamps discovered by the Oates expedition is included and I have not made a full collection of Mallowan's stamps. Nonetheless I have encountered stamps in the course of my researches and I have felt it would be useful to include them, even though most of them have been published before. Seals **1-39** include all of the impressions of stamp seals excavated by Mallowan, three actual stamp seals (**2, 35, 36**) which are now in the Aleppo Museum¹, and a stamp impression (**23**) from Tell Kashkashok kindly shown to me by Dr A. Suleiman. This corpus of designs is almost entirely figurative, which gives a most misleading picture of the stamp glyptic of Brak. Many actual geometric stamps have been found, but they were not often used to make impressions, and so they are not properly represented here. The same situation happened at Tepe Gawra (Rothman 1994, 116). Since so many of the seals have been published, and I do not have a complete corpus, no general account of them is provided here².

The strong similarity between the glyptic of Brak and Gawra indicates that these seals were made in accordance with wide-ranging fashions. The mixture of geometric, delicate figurative (**19, 20**), figurative with simpler, stronger forms (**22-33**), drilled style seals (**35, 36**) and Gable seals (**16?, 17**) is very much the same and shows the range of styles and subjects which were available to local craftsmen when they first began to make cylinders in the fourth millennium, no doubt under the stimulus of Uruk seals. Several of the Brak stamp impressions (**3, 6, 14, 28, 37-39**) might have been made by cylinders, but the significance of this is uncertain if the possibility of "native glyptic" is admitted (see pp. 56-57). There were several different shapes of stamp seals, and the cylinder could have been added by the local engravers as another possible shape. In that case, the use of a cylinder might not have had the special ideological meaning which seems likely in the case of the Uruk cylinders, where only particular kinds of design were allowed.

The stamp seals from Tell Brak are especially associated with the Eye Temple which used to be assigned to the Jemdet Nasr period. Not only does much of the Eye Temple material come from layers within the platform, which must have built up over some time, but there is now evidence for "Eye Temple" material at least as early as the Middle Uruk period (Oates and Oates 1993, 176; 1994, 170). Apart from what can be gleaned from the Gawra sequence therefore, we do not at present have a satisfactory picture of the development of stamp glyptic during the fourth millennium: many types formerly thought to belong to the end of the period may really be much earlier (Møller 1992, 9). Therefore for the dating, **3-39** might belong to any time in the fourth millennium, or, if any of them were made by cylinders, even later.

1 is the only object which is likely to date to a time much older than this. Von Wickede illustrates many objects from the Halaf period which are decorated with a similar pattern (1990, nos. 124-196). Unfortunately our impression has no provenance. Mallowan excavated Halaf period layers at Chagar Bazar, but Halaf pottery is often found out of context at Tell Brak also, especially in the area of the Naram-Sin palace (cf. Mallowan 1947, pl. 79:4). The siglum "T" was not often used by Mallowan, but he did sometimes use it at Chagar Bazar (1936, 21, 29 and cf. 5).

2 may also come from Chagar Bazar, if that is what "CB" stands for; the siglum "E" was sometimes used there³. The object is a so-called "pintadera" quite similar to von Wickede 1990, 61, no. 14, though by no means necessarily so early. Mozan 1 fig. 41: M1 183, pl. XIX is an excellent parallel. Such objects may have been used for a rather different kind of "sealing", such as to make patterns with paint (Buchanan-Moorey 1984, 1).

¹ There are others in that museum.

² See Buchanan and Moorey 1984, 19f. and von Wickede 1990, 193f.

³ E.g. Mallowan 1947, 187-8. A Chagar Bazar Field Register in the British Museum for 1937 uses E1-62 for metal and E381-405 for pottery; the remaining E nos. were perhaps used for other object types in another register during the same season?

2. Uruk and Jemdet Nasr style

Tell Brak has produced some of the earliest evidence for the use of cylinder seals in the ancient Near East. The cylinder Oates and Oates 1993, 177 fig. 31 was found in the latest Middle Uruk stratum in site TW. In style it is a perfect example of the earliest Uruk drilled "massive style" (cf. GMA 297-300).

The fine "Uruk IV" style is represented at Brak only by the bulla D. Oates 1982, 173 pl. XXVd, XXXa, found just below CH level 12. Recently a Middle Uruk date has been suggested for the CH 9-12 material, so this bulla could be even earlier than the seal (Oates and Oates 1993, 168). The bulla was impressed by an exceptionally beautifully carved cylinder of a type not known elsewhere before the "Susa 18" phase. It may therefore be the case that this bulla is one of the earliest known examples of the fine "Uruk IV" style, while the seal is in the middle of the chronological range in which the "massive style" is attested⁴.

All of the remaining Uruk/Jemdet Nasr glyptic from Tell Brak is of schematic style (40-51), of the types which originate in the Susa 17 / Habuba Kabira horizon. 40 and 41 show the "squatting ladies" scene. 43 is probably a fragment of the "temple" scene (Diyala 852-5, etc.). 42 also resembles a temple façade and probably belongs to this time on account of its provenance; but its stylisation is unique and one may even wonder if it was made to be a bead or a component of a sceptre. 44 is part of a "spider" pattern. 45-51 show rows of horned animals, often in the cut style. 49 could also be Mitannian, with the level in which it was found: with such a simple design it is hard to be sure. 46 shows "ladders" running between the animals (as GMA 377-379) so its early date is secure; one cannot guarantee that some of the other simple animal rows could not be later. 51 has an extreme version of the cut style where the animal approaches an abstract form. A fragment from Leilan, in a much later context, may be similar (Parayre 1988, no. 4)⁵.

Schematic Uruk glyptic in Syria normally consists of squatting ladies and cut style animals, so Brak is typical in this respect. Considering the importance of the local stamp seal production, we might expect "native glyptic" in cylinders⁶; the shortage of modelled Uruk style impressions, on the other hand, is almost certainly due only to the accident of discovery.

3. Fired steatite style

52-64 illustrate the range of fired steatite glyptic found at Brak, which is the most westerly site to have such a large corpus. Especially significant is the fact that we have both actual seals and impressions. Having said this, the material is strikingly lacking in variety, the entire production except 52 consisting only of rings, arcades and ladders. This is in accordance with the comparative material, which showed that Nineveh is the last site with evidence for the multiple element group. While sites such as Tell Mohammed Arab and Telul eth-Thalathat show that the fired steatite style was in use in the hinterland of Nineveh, one might have legitimately questioned whether its presence at sites such as Leilan which are now in Syria represented more than an accidental spread of objects. The Brak evidence, both in its quantity and in its consistent nature shows that the fired steatite style was in regular use in the Khabur region, probably as the extreme end of a trading system stretching eastwards to the Proto-Elamite state.

4. Brocade Style

65 is a perfect example of the Brocade Style, which flourished in the Diyala region in ED I. Gubba 20 and Suleimeh 102 (from Tell Halawa in the Hamrin) are the only examples of this style known to me from anywhere north of the Diyala region⁷. Mallowan did not excavate 65, and I am inclined to think therefore that it travelled to Syria before he bought it.

4 D. Oates 1985, 164, and Finkel 1985, 188 ("TB 6014") refer to a "fine Late Uruk sealing" found in redeposited fill on the FS site. This should be a reference to design 164.

5 Cf. also Diyala 834.

6 518 from Chagar Bazar is a possible example and so are the designs treated above which could have been made by cylinders.

7 There is no problem identifying a seal like 65, but simpler kinds of Brocade Style seal like Suleimeh 102 are not easily distinguished from some cut style cylinders of the kind which originated a little earlier, and which do exist in Syria. Parayre has described some seals from Leilan as belonging to the Brocade Style, but I am not entirely convinced (1987-8, 129, no. 5; 1990, 557, no. 1). Mazzoni (1992a, 234) also uses the term, but apparently in a much broader sense than was intended by Frankfort.

5. ED I

ED I glyptic is extremely rare in Syria: the only two examples which are really close to the later ED I of Nippur and Fara are two impressions from Tell Mozan⁸. As the few other designs which may possibly date to this time show no stylistic consistency, it is unlikely that ED I style seals were made in the north⁹. This conclusion was long obscured by the evidence from Tell Chuera, which produced in the Kleiner Antentempel West-Erweiterung glyptic which more closely resembles ED I than anything else in the southern sequence. However all, or nearly all, of this material should in fact be dated later, and the stratified sherd impressions of Ebla and Hama adequately demonstrate that the traits which appeared to give a secure date in ED I, such as the simple compositions and the use of wedges as fillers, were native to western Syria in EB III (see pp. 95, 116).

The heavy style of the Mozan impressions is not known at Brak. Nonetheless **66-79** seem to me to belong to the ED I glyptic of the south, with quite a high degree of probability. If this is so, then Brak has more ED I glyptic than all of the other northern sites put together. This may not be an accident of excavation, because none of them was found *in situ*. Therefore it is possible that Brak acted as a special entrepot for southern goods at that time, just as it did at others.

UE III 175-6 and especially 299 suggest a date for **66-68** in ED I. One could speculate about a connection with the swirls and quadruple spirals of western Syria, which would not necessarily be so early, but the running spirals of **68** and UE III 299 are very close. Furthermore, **68** has the hatched borders which are typical of the ED I glyptic of Tell Brak (**69-73, 77**). **69-77** are contest scenes, which are closer to the seals of Fara than to those of Ur or Nippur. The long lion body rampant over an animal, itself often inverted, the human, generally standing at the side and attacking with a weapon, the occasional crossed limbs and the filling shapes connect **69-77** with ED I designs such as Fara 197-218. This group belongs to later ED I, as shown by Martin (1988, 71). If there was a special commercial connection between Brak and Sumer at that time, it can be seen as replacing the eastern links of the fired steatite system, rather than complementing them, since that system was probably at its height in the earliest phase of ED I. This conclusion may be supported by the only stratified ED I material at Brak, namely R. Matthews' early Ninevite V pit (1994, fig. 4), which did not contain this kind of ED I glyptic¹⁰.

A distinctive feature of **68-73** and **77** is the thin hatched borders which are not typical of the ED I glyptic of Fara and Ur. An impression from Tell Asmar, Diyala 487, was stratified in early ED I ("Protoliterate d") and shows an archaic design with a hatched border. This is a little earlier than the Fara impressions, and may represent a precursor of our style. Since actual seals of this kind were not found in the Diyala region, we may speculate that the Asmar impression was imported, probably (by a process of elimination) from somewhere between the Diyala region and Fara, i.e. in northern Babylonia. Such a region would be the most likely to conduct trade up the Euphrates to Brak¹¹.

79 is the most interesting early third millennium design from Tell Brak. Buchanan (1966, 138, no. 764) compared it to ED II glyptic. The design is very unusual but some ED I impressions from Ur featuring snakes and frogs are rather closer (UE III 283, 284)¹². The loose composition makes this a better comparison than one with the snakes of the west at a later date (Chuera 1964, Abb. 29). A similar pair of snakes may have existed in **78**.

6. Early Dynastic special scenes and banquets

I remarked above how few ED special scenes such as rituals, gods, or the chariot scene, have been found in Syria (except at Mari). The only exception in the north is the boating scene¹³ which we have at Brak in **82**. We do, however, have two boat-god designs (**80, 81**) which are the only ones known to me from north of Mari. The boat-god was especially typical of northern Babylonia (Amiet 1980, 177), so this is further evidence for links to that region. **80**, with its large animal in the boat, is an unusual case with good parallels in Suleimeh 63 and GMA 1496 (Tello), which share its heavily hatched engraving style¹⁴. The twisted tree of the Suleimeh seal may explain the object on the left of **83**, whose human figures resemble those in **82**.

8 Mozan I fig. 36: M1 174, fig. 40: M1 181.

9 Note that GMA 877, which was not excavated, is the only actual seal in question; all of the Brak objects are impressions. See pp. 103-104.

10 A possible exception is no. 10, with animals and filling shapes; but unlike the material published here, it is not a contest scene.

11 Unfortunately little ED I material of this quality is reported from Kish, but cf. Ash 97.

12 Amiet (1980, 208) refers this design to early stamp seals from Iran.

13 VR 242 (Assur), Gawra I 45, GMA 1207 (Mari), 1208 (Hama).

14 Al-Gailani Werr 1992, 34 suggests a further connection to the "Tigris Group" of provincial Akkadian seals; cf. also Møller 1992, 39 no. 64; BM II 185.

84-89 are designs belonging to the "Syrian Ritual" scene. Brak is the only site with a significant series of designs featuring this scene¹⁵, which we saw above (pp. 113-114) may be known in atypical form at Mari, and which may be related to a series of sherd impressions from Palestine. The Brak series concentrates on the structure, which is shown surmounted by small figures and containing further figures, in one case (**87**) apparently "wrestling". The apparent lack of interest in the great deity who is so prominent in FI 755 may be accidental, as our designs are not complete. Part of the head of such a figure may have survived in **84**. The sanctity of the Lady of Nagar was widely respected in Syria in the second millennium (Matthews and Eidem 1993, 203-4), and we might speculate that we are seeing here depictions of her cult a few hundred years earlier at Tell Brak.

90-94 are banqueting scenes which seem to have a special extra significance, expressed through "wrestlers" (**90**), a person bending over a cone and a man climbing a ladder (**91**), a captive(?) (**92**) and demonic figures (**94**). The man bending over a cone may recur in Suleimeh 14, where he forms the throne of the great deity who holds a plant and a drinking tube under a canopy, with a boat and a "building a ziggurat" scene in front¹⁶. The captive recurs on Louvre A133 (GMA p. 171, nos. 1365, 1366): the seated figures in these two seals have a drinking tube and a plant respectively. The demonic figures of **94** are reminiscent of the upper register of FI 755, which has the "Syrian Ritual" below. The horned demon is rare in Early Dynastic glyptic, but we see it in impressions from Susa (GMA 1363) and Lagash (Hansen 1987, no. 18). So these may be adaptations of the banquet scene which repeatedly evoke the same themes.

95-102 are regular banqueting scenes without special subjects. There is a problem of classification here in distinguishing them from the banqueting scenes of the Brak Style (**215-222**). Two criteria are relevant: the presence of hatched bands, detached heads or other features of the Brak Style; and a stylistic difference, where the Brak Style has soft fat forms with much use of the drill, while ordinary Early Dynastic glyptic has thinner more linear forms. Neither criterion is entirely satisfactory, as is illustrated by **222**, which has the small linear forms of an ED seal like **96**, but which also has herringbone bands. **95** also has an ED engraving style and a hatched band, but I have placed it here because the band is not so prominent as in **222**. **99**, **215** and **216** have no special features of the Brak Style, but they do have the soft engraving. I do not think **216** could be separated from the clear examples of the Brak Style, **217-219**; **99** on the other hand could be regarded as an ordinary ED seal. **220-221** are not more obviously in the Brak Style than **95**, but I placed **221** with the Brak Style because of the animal protome in the lower register; and **220** goes with it.

These problems of classification, especially as they involve a high proportion of the surviving designs, mean that the ED and Brak styles cannot be distinguished to an extent that makes further observations secure. Nonetheless we see that the ED banquets normally show drinking tubes, while the Brak style prefers the table¹⁷. The same distinction was true in ED and Brak style designs from elsewhere in Syria (p. 109), so we should not disregard it. It demonstrates that the difference between ED and Brak style seals was not just a matter of engraving style, but also involved the deliberate selection of scenes, presumably reflecting some difference in meaning.

7. Early Dynastic contest scenes

Some 80% of the ED style glyptic from Tell Brak shows contest scenes, an exceptionally high proportion which may reflect the shortage of special scenes in Syria. The order of the catalogue follows crossed animals contests (**110-148**), fine ED IIIA and ED IIIB seals (**149-168**), some special contests (**169-179**) and scenes transitional to the Brak style (**180-182**), the exact order depending often on the details.

First come a few designs which I have found difficult to classify (**103-109**). **103** and **104** are the best candidates for ED II seals at Tell Brak¹⁸. Seals of this period are very difficult to recognise in Syria. Except at Mari, classic ED II seals are very rare (there is none from Brak), and ED IIA seals are absent almost everywhere. Although it is possible that some of the crossed contests could date to that time, I do not see an identifiable group that could be assigned to this phase, such as exists at Chuera. To take one example, one might propose that two-register contests with many small figures (**131-137**) are ED II (GMA pl. 72); however **136** and probably **134** have frontal lion heads and **137** has the leopard, so the whole group is more likely to be ED III. I do not believe that contest scenes in a linear style such as **114** should be assigned to ED II without corroboration: provincial manufacture seems much more likely. The problem is probably the consequence of two factors: first, that ED II glyptic in Syria is not as distinctive as it is in the south; and second, that there are no excavated layers of that date at Brak which might yield a

¹⁵ Beatrice Teissier has shown me impressions recently excavated at Tell Beidar which have an important bearing on this scene.

¹⁶ Cf. also **214**?

¹⁷ **219** shows that the two scenes are not exclusive.

¹⁸ See also below, **171-176**.

corpus large enough to reveal the faint characteristics of a distinct phase, as in the Kleiner Antentempel West-Erweiterung at Tell Chuera. On the contrary, the earliest stratified assemblage of glyptic from ED Brak comes from CH 6, which is not likely to be earlier than ED IIIB.

103 may be an ED IIA seal, as is shown by the open composition and elegant curved forms (cf. GMA pls. 66-7); the attribution is not certain. This is true also for **104**, whose early date is suggested by its deep provenance. This is an unusual and interesting seal for which I cannot find helpful comparanda. The orientation at right angles to what is usual is like the "giant" scenes (GMA 1287-1295), some of which show a hero between two lions; but they are not known in Syria. The two wrestling(?) men are well known in ED II glyptic (GMA 894-6, pl. 72bis F, H) though this might also be a sex scene. The most interesting scene shows two heroes attacking another figure between them who is slightly bent forward. As Dr Collon tells me, this is similar to the "Death of Humbaba" scene which may have originated in the Akkadian period (FI 853)¹⁹. If this is so, then our seal is the earliest known case. Lambert (1987a, 44), however, rejects all possible third millennium cases on the ground that a specific correspondence of all the details is needed to make a link with the texts.

105-109 are contest scenes which I have not classified because the structure of the design is unclear. They do not seem to have crossed figures, but they also do not clearly resemble the ED IIIB "Group of Five" scene. I made a collection of seals from Syria for which these observations also apply (see pp. 105-106), but they have no internal consistency and neither do the fragments here.

110-156 are mainly crossed animals contests, divided into simple examples (**110-126**); small and two-register scenes (**127-137**); ED III seals (**138-148**) and elaborated "ED IIIA" designs (**149-158**). This collection makes it clear that crossed animals scenes are the mainstay of the Early Dynastic repertory at Brak, just as they are in Syria generally. Although many of the designs show explicit ED III features such as frontal lion heads and stags, it should not be assumed either that the whole corpus belongs to ED III (though I think it likely that most of it does, since we have no identifiable ED II style such as appears at Chuera), or that the seals which have a more linear style of drawing or which lack "ED III" features must be ED II. Nor should it be assumed that crossed contests must belong to ED IIIA rather than ED IIIB. I have discussed this question elsewhere (see p. 31), and concluded that in seals of ordinary quality it is possible to recognise some seals which must belong to ED IIIB, but it is not possible to distinguish designs which must belong to ED IIIA. So the entire group of seals **80-158** should be regarded as "ED IIB - ED IIIB" without internal chronological distinctions, except for the many seals with special ED III characteristics which cannot belong to ED II.

The classic Syrian crossed animals contest is perfectly illustrated by **114**. Two lions with profile heads and simple hatched manes cross each other, each attacking a caprid at the side, with a hero in a short dress at one end. Every detail of this description tends to vary but the overall picture is very consistent. The crossing of unlike creatures (**122**) is rare, as we found was true generally in Syria, except at Mari. Extra figures such as the scorpion (**120**) are rare, but most seals have small filling shapes such as dots, plants or fish-like objects. **123-126** have elaborate geometric objects in the field, conceivably related to the heavily hatched native Syrian designs of the earlier part of the millennium. **130-134** show a tendency for the coherent crossed contest with its four or five regular actors to get broken down into a unit of two crossed figures alone, which is then repeated many times in the field. **135-137** on the other hand have finer two-register scenes with a complex syntax and special ED III features. Although they include falling animals, they do not resemble the Chuera group of falling animals scenes, which I suggested was transitional between ED II and III. Our group belongs entirely within ED III.

Equally full-blooded ED III features are seen in the next group of seals, with the frontal lion heads of **138** and **146** and the stags of **139(?)**, **141**, **143-145**. These designs are also characterised by broader bodies (without, however, any subtle modelling effects) and elaborated compositions, both in the layout with extra registers (**138-140**) and in extra figures like the bullman (**138**, **145?**), an extra contest (**140**), or a second human (**146**). Minor figures are now more inventive, including stars (**138**, **141**) and a snake (**140**, **143**). There is however no consistency in the engraving style, ranging from a common ED III quality (**142**), to very coarse (**146**), and to heavily hatched Syrian styles (**143**, **144**). The Syrian hero, both in this group and in the simpler designs treated earlier, is normally clothed with a short skirt, but nude figures are not uncommon (**120**, **122**, **126**, **146**). This shows that these seals should not be counted as crude versions of southern models, where the nude hero is much more important, but as a separate type which had a different view of the compositional problems involved.

The southern seals which are traditionally used as guides to the chronology of Early Dynastic glyptic are unusually fine pieces made by "court workshops" which had their own dynamic quite different from the factors which governed ordinary seal production. No seal of this kind has ever been found in Syria and they are strikingly rare even in the Diyala region (Diyala 332, 335). They seem to be more a phenomenon of southern Babylonia. A small number of impressions from Brak (**149-157**) may thus best be seen as imports from the south: certainly I know of

19 Dr Collon also drew my attention to the similarity between the hairstyle of the two heroes in this scene and in the ED IIIA design Fara 454.

no other material from Syria, even at Mari, to compare with them. We see the hairy hero with elaborate curls (**154-156**), the lions with frontal heads and "flame-like" manes (**153, 154**), large falling animals (**150, 154, 156**), the leopard (**149?**), and generally big seals with finely applied detail such as we might expect in the Royal Cemetery of Ur. **147** is more difficult to account for as it does not fit easily into either the Syrian or the southern ED III groups collected here. It may be best compared to Syrian ED III seals such as Ash 784 and Imprime A1 where a slightly more imaginative approach to the contest scene was adopted.

Perhaps the most important aspect of the elaboration of Syrian glyptic under southern influence was the introduction of inscriptions. This began at Mari in ED IIB, when Amiet suggested the inscribed seals may have been imported (Amiet 1985a, 477). At Brak, we do not have imported classic ED II seals, and inscriptions begin in ED III (**155-159**). The first three examples are all high quality impressions of the kind I have suggested were imports. The last two, together with **160** and perhaps **161**, belong to a conventional Early Dynastic style which has contests with strong linear detail, which is perhaps to be assigned to ED IIIB and related to the Angular Style, on the evidence of **159**. The scorpion and double line under the inscription (**156, 158, 159**) are typical of "ED IIIA" glyptic in northern Babylonia²⁰. Therefore, although this conclusion is not proven, it could be suggested that the earliest seal inscriptions at Brak which were actually made at the site are the semi-hieroglyphic writings on the Brak Style seals **211, 240** and **241**. These were found in Akkadian contexts which also included normal cuneiform annotations on bullae. So at Brak writing does not necessarily appear earlier on seals than it does on clay.

As stated above, much of the foregoing material may have been made and used in the ED IIIB period, despite its "ED IIIA" character. This would explain the relatively small amount of identifiably ED IIIB glyptic²¹ recovered at a site which should have much of that date in the "late ED destruction".

Standard ED IIIB material hardly exists at Tell Brak, but **161-169** may belong to that time for a variety of reasons. **163** (which has no provenance) has a certain resemblance to an Akkadian seal, though I count it as Early Dynastic because of the lack of identifiable Akkadian traits. The boundary is hard to mark precisely (Collon 1987, 32). There is a similar bullman in the fragment **162**. The elements of **167** could all exist in Akkadian glyptic, but so far as I can see this combination of bison(?) head and an arm could only be Early Dynastic²². **168** is a perfect ED IIIB composition, with the figures not crossing over, but the stylisation is unique at Brak. The annotation on the bulla may indicate that it was imported from Leilan (Oates and Oates 1989, 205). It is the nearest thing we have at Brak to the Ebla Style, but it lacks the quality and imagination of the Ebla impressions. **166** and **169-171** are other seals featuring bullmen. We found that the bullman was rare in the ED glyptic from Brak (**104, 138, 145?, 162-3, 172, 180**), with the examples nearly all being unusual in some other respect. Unfortunately I am unable to understand **164** and **165** which both seem to show contests involving horned demons. **165** could possibly belong to the Brak Style (cf. **200**) but **164** is clearly an adaptation of the standard crossed animals contest. **166** is another design perhaps related to the "Death of Humbaba" (see **104**), with a hero and a bullman attacking what seems to be a bullman between them. There is also a large scorpion man, of the kind collected by Amiet (GMA pl. 95). The best parallel is Newell 47 (GMA 1427) where the scorpion-man appears together with the boat-god and other mythological figures, thus supporting a mythological interpretation of the main scene in our design.

The scale and broad bodies of the figures in **161-170** makes it certain that they date later than ED II. **171-179** are not necessarily so late. They certainly do not belong to any normal "ED IIIA" style, and some indications point towards an ED II date, at least for some of them. The compositions of **171-173** are quite like an ED IIA "Elegant Style" seal such as GMA 870, 872, 884²³. Against this, **171-176** have a certain similarity of style, with their fluid, non-crossing figures and, in the case of **173-175**, shapes with linear outlines. But **174** is a perfect ED IIIB "Group of Five" seal and **173** has an ED III stag, so if the group goes together, then it must be ED III. At this point, the easiest solution would be to classify each seal separately, but there is another source of evidence. **172** and **175** are impressions on dockets of the type which are known to have been in use in the late Early Dynastic and Akkadian periods at Brak. These dockets were only used with particular seal styles, and indeed almost all of them have impressions of the Brak Style. Most of the exceptions to this rule are ED III crossed animals contests²⁴ (**117, 125, 138, 140, 145, 146, 164, 180, 199?**), probably representing an earlier stage of the use of dockets; and **91, 172, 175, and 484**. The last of these is certainly an exception, having more in common with the glyptic of the sherds in western Syria; but it is noticeable that the other three belong to the group here under discussion²⁵. Therefore there is an argument to

20 Diyala 320, 332, 502; Kish: Ash 161, 197, GMA 1029, 1033; Fara: GMA pl. 77bis G. All of this material could have been made in ED IIIB (A Cemetery at Kish; Khafaje Houses 2; Tell Asmar Northern Palace). Ash 197 has a strong ED IIIB drilled style like we find in the Trésor d'Ur. Cf. Louvre A66.

21 Note that some of the Angular Style seals **264-278** probably date to ED IIIB, though most of them have Akkadian features.

22 GMA 1006, 1090, 1108.

23 Note the notched tail on the right of **171**, which recurs in **556** which has a much more provincial appearance.

24 To be assigned to ED IIIB, because of the discovery of several in CH level 6.

25 The engraving style of **91** is similar, though it has a different subject.

suggest that **172**, which is the most convincingly ED II design in this group, may really be contemporary with the other styles which are found on the docket, i.e. probably ED IIIB - early Akkadian.

176 is an extremely small design, impressed onto an unusual kind of bulla, which surely belongs to the third millennium on account of its provenance in the area of the Naram-Sin Palace. For all that, it has a strange resemblance to a Cypriote seal of the later second millennium with its "dancing" animals and dots scattered in the field (cf. Ash 957, 971). There is no reason whatever to suppose that Syrian seals of the third millennium influenced Cypriote glyptic of the later second; yet some of the parallels are striking. We see in Cypriote seals men with raised arms, sometimes with exaggerated fingers, tête-bêche designs, the circled dot, and even big daggers: all features of western Syrian seals of the Early Bronze Age. The meaning of this comparison is most probably zero, but it serves to underline the difficulty of classification, and in some cases there can be genuine doubt as to the age of a seal (**529**).

177-179 are scenes with minute figures which are too fragmentary to understand fully: **177** might be a secondary scene from some much larger design; **178** has a frontal lion head and should therefore belong to ED III.

8. The Early Dynastic of Tell Brak: some general comments

Designs **69-179** represent most of the designs of figurative Early Dynastic style in this catalogue, not including several seals which are fragmentary or transitional to the Brak Style. They do not comprise the whole glyptic production of that time, since many geometric, coarse, local Syrian and Brak Style seals must have been made and used at the same time. They serve however as an index, by far the best attested and most sensitive that we possess outside Mari and Ebla, for relations between Syria and Mesopotamia in the first half of the third millennium. Having regard to the arguments presented above, it is possible to make suggestions on which were local products and which were imported. Few of these suggestions can be proved, but it is still worth collecting the results to see what picture emerges. The following proposals can be made:

- ED I, imported from northern Babylonia: **69-77** (9)
- ED I, imported from southern Babylonia: **78?**, **79** (2)
- ED II-III, perhaps imported from northern Babylonia: **80, 81, 156, 158-161** (7)
- ED III contests, imported from southern Babylonia: **149-155, 157** (8)
- ED II-III, various scenes, either Syrian or imported: **95-109** (15)
- ED IIIB contests, either Syrian or imported: **162-3, 166-171, 174, 177-179** (12)
- ED IIB-III, contests, Syrian ED: **82-94, 110-148, 164-5** (54)
- Perhaps Syrian ED IIIB: **172, 173, 175, 176** (4)

Ignoring the 27 seals for which no guess can be made about their origin, this leaves 58 which I suggest may be Syrian, and 26 which may be imported. Of those 26, 11 date to before the time that the ED style was being made in Syria. So perhaps three-quarters of the Syrian designs at Brak in ED III were being made locally²⁶. In the ED I period, imports seem to have been mainly from northern Babylonia; by ED III, southern Babylonia was an equally important source. These conclusions are extremely doubtful, but I think they are worth making, and some check can be made on them by looking at original seals, which are more likely to have been made in Syria²⁷. These are rare in our corpus (**85, 92, 93, 114, 128, 130, 134, 163**), of which **85** and **163** have no provenance, **128** apparently comes from Tell Arbit, and **134** from Chagar Bazar. All except **163** are of types which I suggested were likely to be local, on the basis of what has been found in Syria generally. The rarity of actual ED seals at Brak is strange, considering how many impressions there are, and may best be explained by reference to **128** which probably came from a grave. The cemetery at Tell Brak has not yet been found. Another rich source of seals can be the destruction of a temple, as in the Ishtar Temple at Mari; but whether the FS and SS structures were temples or not, they were not destroyed in war or by accident, but were carefully cleared during their closure. The shortage of ED style cylinders at Brak should therefore be ascribed to the accidents of excavation, and not to their production elsewhere.

²⁶ I cannot distinguish between Syrian seals made at Brak and seals imported from other Syrian sites.

²⁷ There is no reason to fear special effects here, such as the Trésor d'Ur, the Montet Jar or the Thebes Hoard.

9. The Brak Style

The Brak Style is the only glyptic style which is better known at Brak than anywhere else. It used the same set of elements as southern ED IIIA seals, but with quite different principles of composition. Many seals are transitional in character between the Brak Style and ED III, probably not because of any confusion among the cutters, but because the principles of composition of each style can generate some of the same designs. The engraving style of the Brak Style is distinctive, having soft rounded forms with well-defined edges, and much use of the drill; but this engraving also occurs among ordinary ED III seals. Nor should it be assumed that all Brak Style seals were made in the same workshop, as there is quite a wide range of treatment within its recognisable limits²⁸. The catalogue here is in order of subject matter, beginning with contest scenes which are transitional to ED III (180-187), continuing with contests and rows of animals (184-199), chariot scenes (200-203), the boat-god (204-206), banquets (207-225), eagle and animals (224-236), protomes and detached heads (236-256), geometric (257-259) and a derivative group (260-263).

180 should not be counted as a Brak Style seal, but I include it here because of the detached lion head. It is a perfect example of an ED IIIA "Fara style" seal and may well represent a southern import. The little geometric twist is like GMA 1037, 1062, 1099, and detached lion or bison heads occur in southern seals of this group, GMA 1013²⁹ and pl. 77bis D (CANES 85). This series may then represent the source from which the Brak Style sprang. We may speculate that a few seals of this kind were imported for a Syrian workshop in ED IIIA, perhaps as part of an administrative reform which utilised southern models, and that the local craftsmen gave them their own interpretation. 180 has an unusually elaborate contest scene featuring a bison crossed with a frontal lion, and the Brak Style simplified this to obtain its own version 183, which follows the normal Syrian ED practice of crossing two identical lions. The engraving style, hero's dress in three pleats, drillings in the field and above all the guilloche show that this design should be assigned to the Brak Style, but the basic contest is so much in the ordinary Syrian tradition that confusion can easily arise. There is nothing to separate 181 from a seal such as 142, but it has a drilling above the crossing point in exactly the same way as 182 and 183, which include a guilloche. In 184 and 185 the same contest is accompanied by a second register, either of birds or of detached heads. 184 is the earliest stratified Brak Style seal, in CH 6, and it shows that no chronological development can be traced within the style. 186 has a similar composition but the attitudes of the figures are unusual, perhaps more like 263 than the other designs here. 188 is the first seal to show a composition which is especially typical of the Brak Style: two registers separated by a geometric band. This composition was later to become popular in Syria in the second millennium.

193-196 is a small group where the scene is particularly chaotic. There are special figures here like the bird-demon (187, 193, 195) which are not normally found in Syria³⁰. We see here a link to the mythological scenes of the south, especially the boat-god (Amiet 1980, 145). Such seals also often have a chaotic composition (GMA pl. 107). 197 is an individual seal, certainly belonging to the Brak Style with its lion heads and animal protome, but with a minute engraving and much finer details than usual, especially in the curly hair of the hero and the "flame-like" mane of the lion. Perhaps a Brak Style engraver was given a Royal Cemetery type seal to imitate? 198 and 199 may not belong to the Brak Style. I cannot understand their designs, but the stags and chaotic compositions could easily belong with the other seals here. On the other hand, they could be ordinary ED III designs.

The chariot scenes in the south were associated with the banquet³¹ and also, as the Stele of the Vultures shows, with royal military power, conceived in a religious context. Chariot scenes are very rare in the north, but we do have a small series here in the Brak Style (200-203³²) where the subtle iconographic associations of the south seem to be missing. It is reasonable to think that the Syrian rulers were interested in the military symbolism of the south, and sought to copy it; also that they did not understand how the Sumerians rationalised warfare in their theological system.

It is thus not surprising to find that the Brak Style also includes the boat-god (204-206), apparently in association with the bird-demon, but without the other symbols which accompany the boat-god of the south, such as the sphinx and the plough (Amiet 1980, 179). The fragmentary state of the impressions makes this conclusion uncertain, but it seems likely that once again the Brak Style is more interested in the mythological world of the south than the ordinary Syrian ED workshops were, but without adopting it accurately, no doubt because of religious differences in the north.

The banquet scene is an important component of the Brak Style, which centres on a scene where a harpist plays to one or two persons seated at a table which may have objects(?) on it (215-221). 216 has a little stand under the harp.

28 And one major related group is not known at Brak itself, see p. 118.

29 Pointed out to me by Prof. Boehmer.

30 Cf. Brussels II p. 137: 1490, bought north Syria.

31 Amiet 1980, 124-5, pl. 92; Standard of Ur.

32 NB 202 is better preserved in a new impression: R. Matthews 1994, 189 fig. 13:3. Beatrice Teissier has shown me important chariot scenes which have recently been excavated at Tell Beidar, cf. Bretschneider 1993, Jans 1993.

218 has a strange balance-like object which seems to be characteristic of other banqueting scenes with tables³³. Since these include pieces from Kish and Tello (GMA 1339, 1343) we may have here a rare case of identical cult practice north and south. The herringbone band and the engraving style show that **218** cannot have been imported to Brak from the south. **222** on the other hand might well belong to the ordinary ED style, despite its herringbone band, because of its fine linear engraving (see above, p. 132).

211-214 are more unusual versions of the banquet scene, which show an act of libation with a cup held above a large vase, table or cone shaped object³⁴. In **212-214** the table has a simpler structure but is more obviously piled up with objects than in the series with the harp. Such a table may also have existed in **207**, but this design has a strange composition and the details are hard to understand. It seems to have included a geometric band, but not of the usual kind. A more regular dotted interlace occurs in **219**.

211 is mainly interesting for its "hieroglyphic" inscription, which is discussed by Oates and Oates 1991, 137 and by Moortgat-Correns 1994. I have placed **209** and **210** here because their figures are similar, but they may not be banqueting scenes. **208** is a highly unusual design featuring the quadruple spiral, apparently in the context of a Brak Style banquet. The quadruple spiral is mainly known in cylinders in the early glyptic of the Aleppo School, but this design must surely be later. The form occurs in jewellery found in the same stratum as the Brak Style (Oates and Oates 1993, 167 fig. 13), and this design may be a rare borrowing from another medium of expression.

In **224-225** the banquet is combined with the scene of the eagle and animals, which comprises an important part of the Brak Style repertory. We found that this scene is attested at Mari, Nuzi, Assur and Gawra (see p. 110), so its presence at Brak does not represent so clear a departure from northern ED style as usual. By analogy with the other special scenes, however, I would guess that it was seen at Brak as a feature of southern glyptic, especially as the eagle is sometimes shown lion-headed³⁵. There is a range of compositions here from chaotic (**225-228**) to more regular registers (**229-236**). As with all of the designs mentioned so far, the secondary scene is more likely to show a row of animals than detached heads.

The remaining part of the Brak Style is much further removed from its southern roots. The designs are dominated by detached heads, and the disintegration of the figures is accompanied by the degeneration of the scenes, which no longer show connected subjects. Most of the elements are now animal protomes or the heads of lions and bisons, with herringbone or guilloche bands, but some seals contain human figures. **239** has a human³⁶ facing a disk above a tree, in a scene strangely reminiscent of Mitannian glyptic (Amiet 1980, 207). Although plants or trees are not uncommon in the third millennium, they are not normally objects of worship, so this design cannot be accounted for at present.

240 and its double **241**, and **242**, also have a human with raised hand. The first two have a cuneiform inscription, which is very unusual at this time. **244** has been placed here on the understanding that it shows lion heads like in **243**, but Buchanan (1966, 144 no. 779) could be correct in seeing it as two pots being carried in a frame. The Brak Style did not require much variety in a scene, as is shown by **242**, **243**, **245** and especially **257**, which contains nothing but five guilloche bands. This seems to imply that individuality was not always so important as is suggested by **240-1**. **258** seems to show a guilloche above a row of frontal heads, though the style is so loose (cf. **236**) that it is hard to see. **259** is even more difficult to understand. The trace on the left might be the back of a large person sitting on a small stool; but how are we to interpret the rows of "eyes"? Are they meant to be a kind of guilloche (cf. **207?**), or perhaps heads as **242**? One begins to suspect the degeneration of the style. This may be proposed also for **260-263** where the major symbols of the Brak Style like the lion heads are omitted in favour of rows of birds and animals. The first two of these seals do not even have proper geometric bands. Two seals from Oylum Höyük and one from Ebla (Özgen 1993, figs. 4 d, e; Aleppo II 347) show similar characteristics. This might suggest that the type is a western variant; another possible interpretation is that they are later. **258**, **259** and **261** are stratified in the main level of the SS building, i.e. during the height of the usage of the Brak Style in the Akkadian period. The high stratification of **263** should be disregarded as it was not in context. But **262** was found in multiple impressions in the brick vault beneath the floor of FS Level 2, and therefore probably really belongs there³⁷. This level should not be earlier than, at the earliest, the final years of the Akkadian period and is significantly later than the main period of the Brak Style in FS level 5. One could therefore propose that this type of seal originated at the end of the main period of the Brak Style and continued in use after the rest of the style had come to an end; but it is equally possible that **262** was just an old seal.

33 Amiet 1980, 165, pl. 101; cf. Suleimeh 77, and in Akkadian EGZ 458 (Moore 42).

34 Cf. **91**? Note that I compared that seal to Suleimeh 14 where a man bending over a cone forms the seat of another figure: a possible interpretation of our design **214**.

35 **225**, **226**, **231**, **236**; Amiet 1980, 140f.

36 Not two humans, as reconstructed by Buchanan 1966, 151, no. 806.

37 This vault can be seen cut into the middle of the court of the level 3 building in D. Oates 1985, pl. XXIa (pp. 166, 173 in error). REG 1240 is recorded in the fill into which the vault was cut, but this may be an error, perhaps due to an animal hole.

10. Angular Style

The Angular Style sometimes includes Akkadian features, but it probably originated earlier as a kind of ED IIIB. It has two main scenes: the "Group of Five" and the crossed lion contest, both of which also exist in ED IIIB. The abbreviated cutting style is sometimes very linear and angular, with a gradation to more normal engraving. Except at Mari, the "Group of Five" scene is rare and most of the examples are ED rather than Akkadian; at Brak, by contrast, the majority are Akkadian, only **264-267** being probably earlier. **269** is the finest example with its plant clump, to be compared to seals such as EGAZ 63, Copenhagen 15, BM II 239 and Louvre A73³⁸. Apart from this, special Akkadian features include the human heads (**268**, **271**, **276-8**), the star-spade (**270**) and probably the tree in **272**.

On **278** a similar scene is combined with an eagle, which introduces the two eagle and animal scenes **279** and **280**, which are not engraved in the Angular Style. **280** has a close parallel in Suleimeh 59 and al-Gailani Werr gives reasons for an ascription to the Akkadian period (1992, 32), following Boehmer (EGAZ 87).

11. Early Akkadian contest scenes

281-287 are assigned to the Early Akkadian period because they include the bison or human-headed bull. **282-3** with frontal bison heads are probably the earliest; the others should represent a time after the very beginning of the period but before the Late Akkadian of Naram-Sin. **282** may have been the most beautiful originally, but the impression is badly distorted. Apart from the Habuba Kabira tablet (Strommenger 1973, fig. 27) these are the only Early Akkadian contest scenes from Syria, but the Akkadian style probably had a distribution up the Euphrates from the beginning³⁹.

The most unusual seal in this group is **281**⁴⁰, whose heavily hatched style is almost reminiscent of Cappadocian glyptic. This may possibly have been made in Syria on the Akkadian model with some influence from a hatched Syrian style such as in Copenhagen 124.

12. Akkadian contest scenes

288-310 are contest scenes which are less easy to date. They are probably spread throughout the period, as is shown by the more clearly datable seals. **288** has a miniature style similar to **287** which has a bison; but miniature cutting is also characteristic of the "Post-Akkad B" group of seals which are later⁴¹. In **290-1**, **293-4**, **296-7**, **298-9**, **305-6**, **309** the lion has only one fore-paw marked, which is more likely earlier in the period (Boehmer 1965, 30, 136)⁴². Boehmer suggested that a mane covering the shoulder is also an early trait, but this is not often recognisable in our impressions: it may indicate an early date for **299** and **309** and a later for **305**. Crossed animals (**295-302**) are most likely in early Akkadian, but are not impossible in late though they are likely then to have more contorted postures⁴³. Simple compositions as here are very likely to be early Akkadian (Collon 1982b, 46). **301** might even be a very good quality ED III seal, with its falling animals like some seals in the Royal Cemetery of Ur (GMA 1034-5), but I think early Akkadian is more likely. It is hard to tell without more of the design. **302** could have been rolled by the same seal. **300**, which has a similar style, appears to have the lion's paws crossing a long straight object, which I cannot understand.

The arm postures also give conflicting signals. The "Akkadian" arm posture in **288**, **303**, **307-8**, **310** is more likely in later Akkadian, but possible from the beginning; the arm drawn as a short horizontal bar (**295**, **305-6**, **309**) is more likely to be early, as is also the frontal head on the lion (**306**), but in EGAZ 256 (Ukin-Ulmash, son of Naram-Sin) and 257 we see the frontal lion head combined with late Akkadian water-buffaloes in seals which form good parallels to **306**. But **306** also resembles EGAZ 53, dated to Enheduanna daughter of Sargon. The quality of this seal is as good as the best Akkadian glyptic with extraordinary detail in the bullman's head. In **308** the bullman has a profile head which should be relatively early (Boehmer 1965, 28, 33); the goat in **310** is also more likely to be

38 Strangely juxtaposed with a lion in BM II 222.

39 Van Loon 1979, 110 fig. 21, from its stratification contemporary with Ebla IIB1; Machule 1986, Abb. 36 with star-spade.

40 Boehmer 1965, 94 n. 4 (no. 1239).

41 Dittmann 1994; Boehmer 1965, 39 n. 161.

42 This observation should be derived from the difference between Late ED and late Akkadian glyptic, not from EGAZ 128, cf. Nagel and Strommenger 1968, 141.

43 Cf. EGAZ 205. Some Late Akkadian seals with "early" crossing scenes may in fact be recut, e.g. Collon 1982b, 63 no. 113, 25 no. 116. If in the latter seal the water-buffalo under the inscription was part of the recutting, this would account for the similarity with EGAZ 165, which is Late Akkadian, and solve the problem mentioned by Collon 1982b, 25 n. 1. The main crossed animals in BM II 116 are bulls, not unlike our **296-7**.

early. Compositions with pairs of contestants (288, 290, 292?, 304-6, 308-10) are increasingly common in later Akkadian seals.

13. Late Akkadian contests

311-325 are designs which I think are likely to belong to the Late Akkadian period. Apart from 319 and 320, which actually mention Naram-Sin in their inscriptions, most of them are classic Late Akkadian contests with pairs of rivals, lions with two forepaws and bullmen with frontal heads. We have also the inscriptions of a governor of Gasur (317) and of a Hurrian ruler of Nagar (316), which may be Tell Brak (Matthews and Eidem 1993). Although this latter might seem to give historical justification for a still later date, I can see no features in the design which should be later than Naram-Sin. The inscription does not fit into the frame as well as in some of the other seals (317, 319) and therefore it may be secondary. The inscriptions are mostly placed in rectangular cases which either form a terminal or take part in the balance of the design (317), unlike the more careless inscriptions of 282, 303-5 which look like afterthoughts. 322 is a handsome design similar to late Akkadian seals like EGAZ 223, 233.

It is noticeable how rare late Akkadian contests are elsewhere in the north (Parrot 1952, fig. 9; Parrot 1962, pl. XII:1; Thompson and Mallowan 1933, pl. 66:1). Zettler (1977) has collected Akkadian seals bearing royal names and has shown that they all date to Naram-Sin or later and that most of them are classic Late Akkadian context scenes. 316, 319 and 320 are perfect examples of the type. The introduction of this seal type may have formed part of an administrative reform in Naram-Sin's reign, which explains why so few early Akkadian seal inscriptions name identifiable persons. Zettler notes (1977, 37) that most of the impressions of this type are on what are called here "flat bullae", a bulla type which must have had a particular and specific rôle in late Akkadian administration (see p. 181).

14. Akkadian banquets and various scenes

326-335 are banquet scenes, defined as seals where there are two figures facing each other. Their quality is mediocre or poor. The seated figures often have attendants, as in ED seals, sometimes holding fans (330-332), and can have drinking tubes (330, 334). 329 is a handsome seal in which the seated person is pouring a libation before a tree, an action more common in presentations (377). The alternation of stools is an interesting detail (326-8, 329?) which also occurs in the Brak Style (220-1) and in Early Dynastic seals (GMA 1172-3, 1178, etc.).

The tree occurs in the banquet scenes 329 and 335, and also in seals 336-340. 336 looks like a recut banquet, but I am unable to understand the second figure⁴⁴. 337 has no provenance and does not necessarily belong to this period. 338 is probably early Akkadian, on account of its star-spade; the scorpion, snake and tree makes a most unusual design (cf. BM II 56). A similar vertical twisted pair of snakes exists in Diyala 592 which Boehmer (1965, 103-4, no. 574) assigns to the early Akkadian period. 339 has a similar tree and need not be any later, though the scene resembles the Ur III "date-palm altar" series (Collon 1982b, 138 f.)⁴⁵. The Ur III figures do not however touch the tree and Akkadian seals such as EGAZ 708-710 may be more comparable. 340 is a fragment, perhaps featuring a vegetation deity (cf. 369).

15. Akkadian gods

The "Battle of the Gods" is the subject of 343-346 and perhaps of 341-2 also. 343 from Chagar Bazar is an exceptionally interesting design, unfortunately now lost. As an impression on an anepigraphic tablet it may be compared to the tablet from Habuba Kabira which bears an early Akkadian seal impression⁴⁶. The defeated god with his chin raised in the air is similar to seals such as EGAZ 295, 301, 307; the bullman(?) on the right who is attacked from behind recurs on EGAZ 294, 299, 300, BM II 131-2, etc. Mallowan thought the defeated god was grasping a detached human head, but I can find no parallel for this and cannot see it in the photograph. The published drawing (Mallowan 1937, 137 fig. 14:5) was however made from the original object, unlike my drawing from the photograph, and it should therefore be treated with respect.

44 Could it be a recut seal of the archaic "Mannered style" (p. 60)?

45 Boehmer 1965, 116 n. 24, no. 1622 considers 335 a prototype of an early Ur III scene.

46 Strommenger 1973, fig. 27. The seal is dated no later than Akk II by Boehmer (1965, 56, no. 879) because of the type of bullman.

346 is the most important seal-impression to have been found at Tell Brak, both because of its excellent quality, large size and unusual subject, and even more because of its chronological significance. It is typologically the latest datable object from the floor assemblage of the SS building. I shall discuss the chronological implications below, but here I shall give reasons why it should be dated to the Early Akkadian period. In style it obviously belongs to the Akkadian period, and this gives an unquestionable date after the beginning of the Akkadian style – whenever that was in historical terms – for the last occupation of the SS building. Nonetheless the two subjects could both have existed earlier. Early "Battles" are illustrated in GMA 1382-1387 and EGAZ 282-291, and although one could dispute the exact date of each piece, both authors agree that the scene begins in ED III (Boehmer 1965, 49; Amiet 1980, 172f.). Our main scene is more unusual, but we see in GMA 1358 (VR 144) a god in a horned crown and a long plait enthroned on two animals; an animal rampant in front of him has been interpreted as a ritual stand like the two rampant goats from Ur⁴⁷. In our case the rampant animals look more naturalistic. GMA 1357 (EGAZ 491) has two seated gods, in fleecy garments and horned crowns, though not facing each other. In GMA 1218 (CANES 125) an animal is borne before a seated god with a flounced dress and horned crown, and a long plait, with an animal below the feet. Like GMA 1357 and 1358, this seal has a spouted pot; like GMA 1357, it has the vase with branches in it which became popular in Akkadian libation scenes (377). GMA 1218 even has a nude man with exactly the same strange arm posture as the little figure on the groundline between the two gods in **346**. Unfortunately I cannot understand what he is doing in either design. Above all, a seal recently excavated at Sippar (Al-Jadir and Al-Gailani Werr 1987-8, no. 6) shows two deities, each in a flounced dress with a long plait and horned crown, seated on an animal and holding a cup and a branch, facing each other while naked men perform libations before them. A simpler version of the same scene occurs on the Nippur plaque Boese 1971, pl. 18: N8. The standing man with a mace is a simpler version of the one on our seal, and he should date the Sippar piece to the Akkadian period, but I can see no trace of Akkadian style in either of the gods, so the seal must represent the very earliest Akkadian production (Al-Jadir and Al-Gailani Werr 1987-8, 62). So although we do not have the animal-bearer or the vegetation in our seal it is clear that it is showing the same scene that occurs repeatedly in the Early Dynastic period⁴⁸.

Details of the rendering also suggest an early date in the Akkadian period. The left hand deity sits on a remarkable stool with a pattern of long and short elements. Exactly the same kind of throne occurs on two Akkadian statue fragments, one of them dated, according to Shutruk-Nahhunte, to Manishtusu⁴⁹. This kind of seat originated in the Early Dynastic period, as we learn from an inlay found at Mari (Parrot 1954, pl. XV:2). In the upper field there seems to be a star-spade, which would be an Early Akkadian criterion; but it is not impossible that the object is really two cuneiform signs⁵⁰. The type of horned crowns, with broad horns curving outwards, rather than curled back onto the head, is typical of earlier Akkadian gods (Boehmer 1967, 289 Tab. III, row E or F). Finally the dress of the mace-bearing god, with the front turned up, is unusual and distinctive⁵¹. It recurs on Moore 37⁵². This Akkadian seal was excavated in a grave at Kish which contained the pottery types which mark the transition between ED IIIB and the early Akkadian period (Moorey 1978, 66-70). It thus represents the very beginning of the Akkadian period both in its style and its provenance.

It is interesting that the Kish seal and our seal from Brak, which both appear stratigraphically at the beginning of the Akkadian period, both show the "Battle of the Gods", as this scene also occurs in the Selenkahiya impression Van Loon 1979, fig. 21, which is stratigraphically the earliest Akkadian design from western Syria. The Akkadian style must have had a limited dissemination in the beginning in Early Dynastic society, and it may at first have been related to belief in particular doctrines which were held by the Akkadians and not by the Sumerians. Of these the "Battle of the Gods" may be one⁵³.

Three authorities have been consulted about seal **346**. Dr Collon⁵⁴ thought it was late Akkadian on account of its similarity to EGAZ 725 which is dated to Naram-Sin. Certainly there are close similarities in the subject, but I do not feel that the engraving style is comparable. She observed comparable thrones with vegetation deities (EGAZ 536-46), which confirms the interpretation of the scene given above which was derived from ED parallels. She suggested that the "Battle of the Gods" should also be associated with vegetation scenes (BM II 210). She noted that one of the clubs is often bent in scenes of this kind (e.g. BM II 132, cf. **345**). Professor Porada originally agreed with this assessment,

47 Amiet 1980, 165. One might also speculate that the object in VR 144 is a musical instrument, cf. Boese 1971, pl. 17: N6 which may represent an earlier version of the scene discussed below where libations are offered to two gods who hold cups and branches. For the god and clambering branch cf. Van Buren 1955, 365-7.

48 See the plaques GMA 1355-6; Boese 1971, pl. 12: CN 6, pl. 18: N9, 10, pl. 31: T10. The fragmentary plaque GMA 1368 (Boese T8) may even originally have had the same two scenes.

49 Uruk: Ziegler 1964; Susa: Amiet 1976, 18-19, 126 no. 12: there is no reason to doubt the Middle Elamite king's word since there was probably an original inscription on a part of the statue which is now missing, cf. the stele of Naram-Sin where both inscriptions are still preserved.

50 Unfortunately all the impressions are very faint in this area.

51 Cf. EGAZ 377, 390.

52 EGAZ 318, GMA 1386; cf. BN 68.

53 A. Westenholz, pers. comm.

54 Letter referring to the impression discovered in 1988.

but I am told that she was asked about the seal again shortly before she died and then said that it was early Akkadian⁵⁵. Professor Boehmer⁵⁶ had no doubts that it is early Akkadian. He compared two impressions from the Stampflehmgebäude at Uruk, which he dates to Lugalzagesi at the very end of the Early Dynastic period. The first (Boehmer 1991, Taf. 26) probably shows the presentation of an animal to a vegetation deity (unfortunately mostly missing) who is attended by a mace-bearing god with long plaits on each shoulder and a dress looped up in front. A symbol similar to the star-spade, but with a round end, is in the field. The second impression shows a similar attendant before a seated deity in a flounced dress enthroned on two animals with long plaits on each shoulder. These two impressions, although not engraved in the same style as 346, nonetheless confirm how well it fits among the representations of the gods which were made only a little earlier⁵⁷. He considered the seal stylistically no later than UE II 307, an early Akkadian seal with an inscription naming Enheduanna daughter of Sargon.

The arguments for dating this seal to the early Akkadian period seem to me to be so strong that I shall count it as a datable seal hereafter and use it as the crucial piece of evidence for my understanding of the stratigraphic sequence at Tell Brak.

The beautiful quality of the seal may be compared to the fragments 345 and 347. 345 must have shown another scene of the "Battle of the Gods"; 347 was a hunting scene, probably with a line curving over the animals to indicate the landscape⁵⁸. It contains an interesting detail, a quiver with a long tassel, which gives reason to date it in the early Akkadian period. Such a quiver with tassel occurs in BM II 141 which is thought to belong to a servant of Sargon's brother⁵⁹. The grand scale, fine detail and the rendering of the dresses in this seal are all comparable to 346 and they may both have come from a workshop at Sargon's court. The tassel also occurs in an Akkadian stele from Tello which was dated by Foster (1985) to Rimush and also in a fragment of the stele of Sargon⁶⁰. We see it in the seal of Adda (BM II 190) and in EGAZ 390, in both seals carried by the god with a looped-up dress. The ridged hairstyle may be compared to the helmets on the Nasiriya stele which Amiet dates to the same period as the Tello stele (1976, 27-8, fig. 19 and no. 26). Thus although 347 is not perhaps in exactly the same engraving style as 346, and should perhaps be dated to the second Akkadian generation where 346 belongs to the first, it does have some parallels in the same material. 348 is too fragmentary to understand clearly, but it may have shown animals in the field of a hunting scene⁶¹. This may also be true of 349, but kneeling persons also occur in the "Battle of the Gods" scene (cf. BM II 138). In this case the figure on the right should be another god, which may just be possible.

Mythological subjects are usually conceived in Akkadian seals as part of the worship of a god, but they do occasionally occur on their own. The most interesting is the "Etana" scene, which surely depicts a myth related to, if not exactly the same as, the text which has survived. 350 illustrates the existence of this scene at Brak, complete with the two dogs looking up at the eagle (cf. EGAZ 693-701). The chariot scene is even more uncommon in Akkadian glyptic, where it represents the procession of a god⁶² and is often drawn by a mythological beast (EGAZ 371-374); 351 is too incomplete to decide whether it belongs here or, as its natural equid might indicate, with Early Dynastic chariot scenes (GMA 121-1217). The engraving style seems to me more likely in Akkadian.

352 is a scene of "Tötung eines Stieres"⁶³. Lambert (1987a, 48 n. 35a) denies that this scene is connected with the "slaying of the bull of heaven", but it may nonetheless have some mythological significance. 353 and 354 are other designs with bulls, 353 perhaps a variant of the "bull and gate" scene with its unusual rosette and large star replacing the winged gate (cf. Ash 295)⁶⁴, and 354 perhaps related to scenes of an animal before a seated god (EGAZ 561-4). 355 is a strange seal whose meaning has not been recovered. Boehmer (1965, 111, Abb. 630) made comparisons with later Akkadian seals, and noted parallels for the pot on its stand. Of these, EGAZ 549 is especially interesting as it shows the pot on its stand draining into a second pot below it. This may occur in our seal also. Collon (1982b, 77 no. 149) agrees with Boehmer's date and compares the seal Porada 1966, pl. XVII:81 from the Jarre Montet in which a similar table is connected with the bull cult. This is an important observation as it may make our seal one of the earliest examples of the association of the seated figure with the sacred bull, which is one of the mainsprings of the glyptic of the beginning of the second millennium in Syria (Teissier 1984, 63; cf. Amiet 1963, fig. 31).

356 and 357 are ordinary "bull and gate" scenes (cf. EGAZ 589-619). Collon (1982b, 87-8) has indicated problems in the interpretation of this scene. The man in the broken seal 358 is in an attitude which would fit such a

55 D. Collon, pers. comm.

56 Letters written in 1992.

57 "Typologically" earlier; we cannot of course assess how quickly the new style spread from one city or workshop to another.

58 EGAZ 721-2. I owe this observation to Dr Collon.

59 EGAZ 717, cf. Nagel and Strommenger 1968, 170, 173-4.

60 Amiet 1976, 8, 10, n. 19, fig. 1, 74 no. 4a.

61 Cf. Brussels I p. 222: 452.

62 Cf. Black 1988.

63 Cf. EGAZ 361 (Moore 48). D. Collon pointed this out to me. Boehmer compares the design to Louvre A160 which he dates to the Late Akkadian period because of the number of flounces on the dress (1965, 61 nn. 17, 18, Abb. 361, no. 928).

64 For the axe(?), cf. FI 133, Porada 1966, pl. XVIIc.

scene (EGAZ 613-4), or else a Shamash Rising scene (BM II 176), but in each case we would expect to see part of the "gate" above the broken area.

359-364 show the scene of Shamash rising in the mountains between gates held open for him by attendants (EGAZ 392-424); the terminal tree in **359** occurs in EGZ 397, 404, 413-4, 417-8, 424. In **365-367** we have the bird-man brought for justice before the water-god (EGAZ 493-519). **368** apparently shows the water-god facing a kneeling nude attendant with a pole⁶⁵. The hatching of the god's robe is unusual.

The splendid seal **369**⁶⁶ shows three gods, holding a plough, flowing waters and vegetation respectively, with a human on the right. There is a good parallel in CANES 207. These are all symbols directly related to agricultural fertility (cf. Boehmer 1965, 94f.). There is no consistency among the seals of this kind as to which god faces the others: sometimes the plough-god, as here, or the water god (Diyala 609); more often the vegetation deity (EGAZ 532-8).

370 is a remarkable seal showing the offering of an animal to a god enthroned on the back of a *mu hu u*-dragon (Boehmer 1965, 100 Abb. 568). This kind of design (EGAZ 568-72) is typical of the Diyala region where it represents Tishpak or Ninazu (Wiggermann 1989). Its singularity is enhanced by the total absence of the related, and more common, snake-god (EGAZ 575-587) from the north. Therefore although there is nothing stylistic to show it, this impression should perhaps be regarded as an eastern import, like the Provincial Elamite seals (**562-5**). **371** seems to have shown a god mounted on an attributive beast, but the details are unclear.

Most of the remaining Akkadian seals show presentations before seated persons, some marked as deities by their horned headdresses, flounced dresses and other attributes (**372-380**) or not. **372** and **373** have unusual thrones, typical of vegetation deities (Collon 1982b, 99); the inscription of **373** above an animal is like UE II 198 (EGAZ 548), a seal with the name of Enmenana, daughter of Naram-Sin. This type of inscription is typical of mid to late Akkadian seals (Boehmer 1965, 133). **376-7** presumably show the sun-god with his rays, enthroned (cf. EGZ 440-450). The attendant with a pail (**376, 381-2**) appears, for example, before the god with rays (**376**), the weather god (EGAZ 368), the vegetation deity (EGAZ 537, BM II 212), the "goddess with a child" (EGAZ 557), the snake-god (EGAZ 569, 572, 574) and a goddess (EGAZ 646, 648). Carrying an animal for offering (**370, 379, 380, 382, 383**) occurs before the weather god (EGAZ 368), the moon god (EGAZ 376), Ishtar (EGAZ 381, 387), Shamash (EGAZ 456-8), Ea (EGAZ 499, 504-5, 515, 517, 519), a vegetation deity (EGAZ 540, 554, 561), the "goddess with a child" (EGAZ 557), the snake-god (**370**, EGZ 566, 569, 570, 572-3) and unidentified figures (EGAZ 549, 622-3, 636, 643-4, 649). These persons therefore probably represent general ritual actions rather than the servants of a particular god. Libation (**377**) is much less common (e.g. EGZ 384, 646, 648, 715a) but probably also has a general significance. The order of introduction to the god varies, e.g. the animal bearer approaches the god directly (**379**) or through an intermediary (**380**); likewise the pail-bearer is introduced to the seated figure (**381**) or stands at the back of the procession (**382**).

384 and **385** represent an animal being led, rather than carried, before the god⁶⁷. This is very unusual and contrary to the usual artistic principle of not overlapping figures (except in geometric crossing patterns or where one figure is supporting another). It happens sometimes with the shepherd in the "Etana" scenes (EGAZ 693) and in ploughing scenes (EGAZ 711)⁶⁸. In **388-390** a scene with a seated figure is combined with a hatched area⁶⁹. This may be compared to the guilloches in EGZ 674, 679 rather than to the snake interlace of EGZ 321. **391-400** are fragments of presentation scenes, all of which should be dated to the Akkadian period.

401 is the only design at Brak for which a date later than the time of Naram-Sin seems necessary. The design is entirely unintelligible, except for the figure of the "interceding female" which is very clearly drawn. As explained above (see p. 16) this figure was probably invented in the phase between late Akkadian and classic Ur III glyptic, so our impression is not likely to date earlier than a time in the later part of the reign of Sharkalisharri.

16. Comment on the Akkadian glyptic at Tell Brak

We have already seen that the Akkadian assemblage at Brak includes glyptic from the earliest phase of the period (**268-283, 346**) down to the classic Late Akkadian period (**311-325, 369, 373**), though almost nothing can be assigned to a time after that (**401**). The range of subjects is also wide, and can be compared to the list given by Boehmer (1965). In the list given next, "and elsewhere" means that the type exists in northern sites other than as catalogued here (see pp. 122-123). Apart from contest scenes, of there is a wide variety at Brak, Boehmer's types are:

65 EGZ 518-525. Boehmer (1965, 92, no. 1219) considers this scene is typical of Late Akkadian.

66 Considered late Akkadian by Boehmer 1965, 84 Abb. 490, because of the number of the flounces in the dresses.

67 Cf. Gawra I 67, Brussels I p. 130: 429.

68 Cf. also BM II 222.

69 Cf. VR 142, Louvre A34, Moortgat-Correns 1968, no. 43, Brussels I p. 128:575.

- III ("Battle of the Gods"): **343-346** and elsewhere
 IV (slaying of a bull): **352-355**
 VIII (Shamash): rising **359-364** and elsewhere; or enthroned **375-377** and elsewhere
 IX (Ea): with Anzu **365-367** and elsewhere; or without **368, 369** and elsewhere
 X (vegetation deities): **369, 372, 373** and elsewhere; seated god and animal: **346, 354**
 XI (god on snake-dragon): **370**
 XIII ("winged temple"): **356, 357** and elsewhere
 XIV (various presentations): **378-399** and elsewhere
 XV (banquets): **326-335** and elsewhere
 XXIII ("Etana"): **350**
 XXV (tree scene): **338, 339**
 XXVIII (hunting): **347**

V (weather gods) may have existed in **351** and **371**, perhaps also in Gawra I 61. This list shows that although Brak has more Akkadian glyptic than the rest of the northern sites put together, it has the same range of subjects. No subject occurs elsewhere in the north which is not known at Brak; and no subject is known at Brak which is not known in the south. There are however subjects attested in the south which are not known in the north. To some extent, this must be due to the smaller corpus available. We should place no great importance on the absence of subjects which occur less than 10 times in Boehmer's list (types II, VII, Xb, XVI, XVII, XIX-XXII, XXIV, XXVI, XXVII, XXIX⁷⁰). This leaves missing only VI: warlike Ishtar; VIII d/XVIII: boat-god and boats; and XII: snake-god. These types are almost exclusively attested in the Diyala region and at Susa, the only exceptions in Boehmer's list being: (Ishtar) UE II 359, UE X 245; (boat) EGAZ 589 (Nippur); (snake-god) Ash 342 (Kish) and EGAZ no. 1329 (Nippur). All the provenanced examples of the snake-god and the god on a dragon listed by Boehmer (1965, 180-1) come from Eshnunna or Susa, except for Ash 336 and 342 from Kish and a seal from Nippur⁷¹. It therefore seems likely that Tell Brak, and indeed the north generally⁷² obtained the Akkadian style from central Babylonia and not from its eastern fringes. Contact thus probably ran straight down the Euphrates. At Brak especially, this result is a little surprising since we have contact with the east attested through the Provincial Elamite style which occurs in the Diyala and Hamrin regions (**562-565**), and perhaps also through **317** and **370**.

Although a variety of engraving styles is present at Brak there are few, if any, seals which are in an engraving style which one could suggest is Syrian (perhaps **281, 336, 355**). Nonetheless, so much Akkadian glyptic is present at Brak that it is most likely that the style was made there, by craftsmen whose outlook was purely southern. One can speculate that they were imported, or that Syrian seal-cutters were sent south for training; but the kind of local adaptation that is such a striking feature of the Early Dynastic of Syria is almost completely absent from the north in the Akkadian period over what must be a period of some time. This may speak for a loss of confidence in local cultural traditions, perhaps because of military defeat, and eventually conquest, by the Akkadian kings.

17. Geometric seals

402-404 are crude ladder-patterns of a kind which may be derived from fired steatite glyptic. They could date to any time in the Ninevite V period. The lug handle of **402** might be expected in the EB I Aleppo School, but the design is not particularly typical of that group so it might be later. **405-411** are chevron patterns, a type which originated at least as early as the Jemdet Nasr period (Diyala 10, 52), and perhaps earlier (Aleppo II 310, 311). Horizontal chevron patterns such as we have here continued until the end of the Early Bronze Age in the west (Tarsus II fig. 393: 20-21) but the latest cases from eastern Syria are probably ED IIIA and could be remnants from the Ninevite V period⁷³. At Tell Abu Salabikh, on the other hand, Martin and Matthews (1993, 34, no. 102) suggest that all the geometric seal-impressions from the Ash Tip belong to ED IIIB and that designs with horizontal lines (**407-409**) are especially likely to belong to ED III.

412-416 have triangle patterns. **412** is unusual and may perhaps be compared to a group of Levantine seals which may date to EB I⁷⁴; but they have a more regular pattern and our seal does not need to be so early. **413** may be compared

70 Dr Collon has suggested in a lecture that some scenes which are traditionally interpreted to show the sun-god may really show the moon god. In this case this figure would have a much broader distribution.

71 Boehmer 1965, no. 1329 = Philadelphia 164.

72 And oddly enough the significant collections of Akkadian seals from Nuzi and Gawra, which are up the Tigris valley from Eshnunna, are included here. The Hamrin, on the other hand, includes a snake-god (Suleimeh 68).

73 Pfälzner 1988, fig. 12; Ii and Kawamata 1984-5, fig. 25:38.

74 Byblos I pl. 126:3856, Lapp 1989 figs. 2, 4.

to Diyala 167 at the beginning of ED I while **414** is very close to Aleppo II 318 from Jebel Aruda. **415** and **416** with their excised triangles may be rather later being more likely to be derived from the fired steatite tradition⁷⁵.

417-427 have diamond patterns, which we found were the most widely distributed geometric type⁷⁶. **417** is the only case with concentric hatching: we found this was typical of EB III western Syria. **419** and **420** have horizontal hatching which occurs in EB I-II. **421** and **422** have diagonal hatching which was used from the Late Uruk period as least as late as EB II. **423** and **424**, where the diamond contains an oval form, are most likely in ED I; the cross-hatching of **423** continues to EB II or perhaps even later⁷⁷. **422** is more unusual and may be best understood in comparison with the Habuba design Sürenhagen 1986, fig. 11c which has cross-hatched panels and large X-shapes. **426** and **427** are rather different from the others with their large fields and squat proportions. I do not know of good parallels for them. While the proportions might seem most likely in the fourth millennium, I suspect that they might really belong to a time close to the contexts in which they were found in the Akkadian period. In summary, I date all of these diamond patterns to some time in the Ninevite V period, with the exception of **422** which might be earlier and **417**, **426-7** which might be later. The parallels are not however decisive and the dates for each type depend on assumptions about which pieces should be regarded as antiques which could not be supported statistically. Therefore these suggestions should not be taken too seriously.

428-437 have lozenge patterns. This type originated in the Late Uruk period and continued until the end of Ninevite V. **430-434** have more regular designs and may therefore be earlier; the degenerated forms of the others may be more likely in the later Ninevite V period. **436** may be a guilloche pattern which may also be most likely at an early date.

438-450 are lattice patterns, varying in size from the tiny **438** to the large **447**. Although this pattern existed in EB III in the west, we found it was difficult to find evidence for it after EB I elsewhere and suggested that this may simply be due to non-publication (see p. 74). The large collection from Brak leads me to think that the type was probably made, at least, throughout the Ninevite V period. **448**, with its toothed band above the lattice, may be compared to an unpublished seal from Tell Chuera (Moortgat and Moortgat-Correns 1978, 25) and also to **411**. It is highly questionable whether **449** and **450** should be understood as seals at all; the hatching is closer and lighter than in the other pieces, and the proportions of the objects are quite different. They should probably be regarded as beads or components of composite objects.

451-455 are dotted lattice patterns, which is an entirely different form from the common lattice⁷⁸. I know only two other cases from Syria, both from sites which produced sculpture of Early Dynastic type⁷⁹, while southern examples come from ED IIIB contexts (see p. 110). It is interesting that only this pattern, and not the contemporary festoon pattern of the south as well, is found in Syria.

456-468 are headed "various geometric patterns", though it is not certain that none of them included figures. The fine key pattern **456** is, so far as I know, without parallel⁸⁰. **457** could be compared to the Susa 18 impression Le Brun 1978, fig. 7:2. **460** is not probably as late as the Old Babylonian period (Collon 1986a, 217 no. 647), on account of its provenance; clay seals are not uncommon in ED II-III, though there are fewer in Akkadian strata⁸¹. **459**, **467-8** may possibly have been fired steatite designs, and **461-463** apparently form a group of large patterns with straight lines, all three coming from the SS site and therefore possibly likely to date to the ED III or Akkadian period⁸².

18. EB seals

I use this term to describe Syrian styles of the Early Bronze Age which do not belong to the Mesopotamian tradition. The order of the catalogue was determined to give a continuous sequence of details of subject and style, but it does not correspond to a chronological sequence. The first group (**471-477**) shows simple scenes of goats and humans, with the same subject and syntax as the "Syrian animals style" (**558-560**). **472-474**, with perhaps **471**, form a special group which I call "H-animals", where the figures are heavily stylised and the background is hatched. I know of no other examples of this type except for a handsome unpublished impression from Assur⁸³.

75 Cf. Moortgat-Correns 1988a, 23 Abb. 11.

76 For each type of hatching, see the references in pp. 71-72.

77 Impronte B126, Ash 58.

78 For southern examples, cf. Hrouda 1987, 63 (IB 1413).

79 Mari Ishtar pl. 67:251; unpublished seal from Tell Chuera shown to me by Dr Moortgat-Correns.

80 Buchanan 1966, 136 no. 748 makes some suggestions.

81 Al-Gailani Werr 1988, 2-4; see also p. 100-102.

82 Perhaps cf. Martin and Matthews 1993, nos. 69 and 70??

83 Kindly shown to me by Dr Klengel-Brandt. The hatched line and rosette in the Ebla seal Impronte pl. 49:6 might also be compared to **476**.

We cannot however deny a relation with seals of the Chuera Style, which we dated to ED IIB (see p. 117) where scenes of humans and animals are portrayed in a rigid style, often with a spiky object under the animal (500, 502). The lines of Chuera Style designs are however more fluid, there is a greater range of subjects, and the field itself is not cross-hatched, so we can propose that this group represents a later development of the Chuera Style.

478-483 represent animals drawn in a non-Mesopotamian style, most of them impressed on sherds. 480 and 481 are exceptionally large and 483 makes interesting use of the western tête-bêche principle. 478 and 482 suggest that the type probably dates earlier than ED IIIB; but the group is not stylistically unified.

484-487 have more character, based on the tête-bêche principle and a consistent set of figures, including animals with legs drawn as parallel lines, a man with raised arm, and (484, 485) a curious figure with double curved lines in front and behind. 484 has the most significant context, being a docket from CH 6. Since a group of dockets was found in this context, we may assume that this object is *in situ* and therefore that it dates to the end of the Early Dynastic period. The group has western affiliations in EB III-IV, especially in the Hama sherd Copenhagen 119 and the Selenkahiya seal FI 133. As Buchanan pointed out (1966, 139 no. 754) the strange man also occurs on Copenhagen 113, acquired at Hama; and he may possibly also appear on the Palestinian sherds Ben-Tor IIIC-3, 4, if the reconstruction is correct. Stylistically, these western seals are often similar to the "Syrian animals group", though they lack its internal hatching of figures. As Moortgat-Correns (1970, 144 Abb. 1) pointed out, there is also a good parallel between 485 and a seal from Samsat which, however, I suggested should be dated to EB I. Our group should certainly be dated no earlier than EB III because of the type of tête-bêche arrangement, which differs from what we find at Byblos in EB II (see pp. 97-98).

The Tell Sabra sherd (Tunca 1987, pl. 107) demonstrates the existence of similar material in EB I, including the tête-bêche principle and men with raised arms (see p. 100). Prominent linear fingers are typical of such early glyptic, and occur in our seals 489 and 490. 491-494, on the other hand, show a fluid fitting together of the different figures which I suggested was characteristic of the northern Levantine coastal area in EB III-IV (see p. 98).

In 495 we see wedges used as fillers, with a large rosette in the case of 496. This is linked to Tell Chuera and the west in ED IIB and EB III (see pp. 95-96). 498-502 may also belong to the Chuera Style, and illustrate its dissemination in the Khabur region: 500 comes from Mozan, 502 has a parallel at Leilan so exact that it may have been rolled by the same seal. Typical Chuera Style elements such as the spiky object, the bird and the scorpion abound.

503-506 are in some respects similar to these, but with less conventional subjects, such as the strange spiral in 503 and the hatched object in 506, both perhaps some kind of seat(?). The context of 505, in the ritual deposit from the SS complex, is particularly good and may imply that this group belongs to a time not much older than that building. If so, it may represent a derivative from the Chuera Style. 505-507 use circled dots, but have no resemblance to the main series of figurative designs with circled dots which I suggested is EB I-II⁸⁴. 506 and 507 have some resemblance to the EB Banquet series (508-513) which may belong to the Akkadian period. It is unfortunate that 507 is incomplete, as it was probably a remarkable design; were it not for its context, I would have considered a Late Bronze Age date highly likely because of the "tree". Like 503 and 506 it seems to have an abbreviated seated figure, while the standing men(?) may be compared to Mozan I fig. 38: M1 178 which probably belongs to the Chuera Style. It may therefore be suggested that 503-507 represent a group intermediate between the Chuera Style of the beginning of the later third millennium civilisation of Syria and the EB Banquet of its end; but the pieces are too few and too fragmentary, and have too few parallels, to allow this interesting development, so free of southern influence, to be properly understood.

The Banquet Scene was introduced to Syria probably in late ED II, in designs of the Chuera Style. In ED III it became a favourite subject of the Brak Style and we see there a preference for the scene with a table which was not shown by banquet scenes from Syria of ordinary ED style. In later ED III the first examples appear of the "EB Banquet", a scene usually with a table, which is the ancestor of the earliest Syrian glyptic of the Middle Bronze Age (see pp. 121, 147-148). Some of the most important scenes of this kind come from Tell Brak (508-513). The multiple impressions of 508 from the Akkadian level in ER are particularly significant, because this context is likely to be good, so this design probably really belongs to the Late Akkadian period, despite its lack of Akkadian features. We found this was true of the EB Banquets in general, and the only possible Akkadian feature of the designs collected here is the pot in 512, which might perhaps be compared to Akkadian seals such as 377. The context of this seal, under the upper floor of the Naram-Sin Palace, is also likely to be late Akkadian. The row of men with raised arms and the scorpion of 508 are directly in the ancient Syrian tradition running back to EB I; the structure, on the other hand, seems to be an innovation of the native Syrian glyptic of this time, as in FI 133, Copenhagen 124, Impronte B111 (Hama) and Tarsus II fig. 397:9 (see p. 122). It may be an ancestor of structures to be seen in early MBA seals such as Marcopoli 355-6 and it may recur in 527-529. 510-513 are centred on pots, not on tables: this is also typical of early MBA seals which often have both (Marcopoli 352-3). Stylistically, these seals are not close to

84 Except perhaps for Byblos II pl. 192: 6836.

the MBA group, but they are the most convincing sources for their subjects. An interesting detail in **511** is the figure on the right, who may resemble the strange person on **484-5** (see p. 98). The triangular-topped column recurs in the Brak Style seal Ash 816.

514-517 are designs with a hatched band along the top⁸⁵. The bird, harp, seated man and animal of **514** are all regular features of the Chuera Style (see p. 115). Although not obviously belonging to this style, **515** may also belong there, as is confirmed by the snake above the animal's back, like **502** which has clear Chuera Style features. By comparison with these two designs, **517** may also belong to the Chuera Style, though it is unusually lacking in ED features and its row of men with raised arms would be credible in the west much earlier (cf. Behm-Blancke 1984, Taf. 12:2).

I can make no suggestions about the date of **518-524**: they are seals featuring humans which do not look Early Dynastic. Malloyan (1936, 29) suggested that **518** belongs to the Halaf period, which seems fantastic; but it has some similarities to Nuzi pl. 41E which comes from among a collection of fourth millennium stamp seals which may have been in context.

525 and **526** are handsome examples of the "stick figures" group (see p. 100). The Field Register may indicate a Ninevite V date for **526**. A good parallel, Orthmann 1986b, 56 Abb. 34, on the other hand, is stratified at the end of the Early Dynastic period or a little later, and so is **525**⁸⁶. This kind of seal was probably made over a long period of time. These two seals are remarkable also for their large size. We see this also in **527-533**, which were all made of soft materials, mostly artificial. They probably belong to the same period (second half of the third millennium) and have parallels among the "clay seals"⁸⁷.

529 is the most difficult seal of this group. It was found in a context of the mid second millennium, and as Malloyan pointed out (1946, 157-8) it has good parallels in the glyptic of Late Bronze Age Cyprus⁸⁸. Nonetheless the scene could easily belong to the Syrian Early Bronze Age. The hatched box occurs in seals like FI 133 and I have repeatedly stressed the importance of the man with the raised arms. The swirl is like Byblos II pl. 193:14541 which is close to Newell 650, which is loop-bored and therefore probably EB I (see p. 63). The snake is like Mazzoni 1992a, Tav. 46: 2, 5. The question is thus: is this seal out of place in time or in space?

534-555 are seals which I am unable to classify⁸⁹. For most of them this is because of inadequate preservation, but some are complete. **534** can be compared to an impression on a sherd from Palestine which Ben-Tor assigns to EB II (1978, 90, IIC-11). **549** might perhaps be compared to Diyala 599 from a late Akkadian context at Tell Asmar.

556 and **557** share a small size and a style and subject related to Early Dynastic glyptic⁹⁰. The lion's tail in **556** also occurs in **171**, which might be as early as ED II; on the other hand, **557** was used on a special type of clay block which was also used for **280** which is probably early Akkadian. The form of these blocks is too similar for them not to be contemporary, but old seals could be used on them, as is shown by **40**.

558-560 are designs belonging to the Syrian Animals style. This style is probably typical of western inland Syria in EB III, though most of the known examples have been purchased (see p. 96). The group is very similar to the western glyptic which inspired the Chuera Style, and whose roots go back to EB I (see pp. 100, 115), but the triangular forms and the hatched surfaces of the body segments are distinctive. **558**, found on the floor of the SS building, indicates that the type lasted into the Akkadian period. The tree looks almost Middle Assyrian, but the context and the form of the man's head show that the seal belongs to the third millennium.

562-565 and probably **561** belong to the Provincial Elamite style, sometimes miscalled the "Guti Style". They are the only examples of this style from Syria and illustrate the connections maintained between Brak and eastern Mesopotamia in the later third millennium. The term "Guti seals" has been applied to two completely independent groups, which are referred to here as "Provincial Elamite" and "Post-Akkad B"⁹¹. Although the evidence for the Provincial Elamite group has long been clear, it has somehow got into the literature that it should be dated to the Post-Akkadian period. The style was first found at Susa (Louvre S388-399) and this remains the major source: but it yields no dates. The next main source is Tell Asmar, where five examples were found in the Houses area, stratified in levels Va (Diyala 567) and IVa (629); Diyala 514, 597, 748 are less securely stratified in similar levels. Diyala 558, 596, 599 come from Houses Va-IVa, but it is not certain that they belong to this group. Frankfort therefore assigned the style to the "Akkadian or protoimperial" period (1955, 33) or "in Akkadian times" (1939, 142). Frankfort refers to other cases from Tello (thought by Boehmer to be an error) and Kish (Ash 818-820)⁹², and there are cases from

85 Cf. Strommenger 1973, Abb. 26 from Habuba Kabira.

86 Dr. Wartke told me he had found a seal similar to **525** in a rather earlier context.

87 See pp. 100-102; cf. Philadelphia 30.

88 Accepted D. Matthews 1990, 23 n. 235.

89 For **548**, cf. perhaps Yale 221.

90 For these two designs, cf. perhaps the chariot and lion in the impression published by Jans 1993.

91 See p. 16.

92 I include here another example from Kish, **566**, from an indeterminate context.

Ur⁹³ and Assur (Andrae 1922 fig. 64). The Assur case comes from the floor of the shrine in level G of the Ishtar Temple, which belongs to the ED III or Akkadian period (see p. 44 n. 46). Several examples have been found at Brak, of which **562** and **564** come from the upper levels in the ER and FS sites, which should date to the Post-Akkadian period or later. But the impressions **563** came from levels which are probably near the floor of the Naram-Sin Palace. Recently an important addition to this distribution was made at Tell Suleimeh, al-Gailani Werr 1992 nos. 78-82 from Levels IV-VII. No. 82 is stratigraphically the earliest. It was found in a grave which also contained nos. 50, 57 and 59 (*ibid* p. 44). These seals belong to the earliest Akkadian period and level VII was thought to belong to the Early Dynastic period by the excavators: Akkadian period tablets were found well above this in Level IV (*ibid* p. 4).

It is clear that this style cannot be dated later than the Late Akkadian period, and the evidence from Tell Asmar and Tell Suleimeh would indicate a date even earlier, on the transition between ED III and Early Akkadian. However the literature became somewhat confused. In both of his works (1939, 1955) Frankfort discussed the style in the context of the Gutti people. He intended only an ethnic relationship, but as his statements are embedded in both volumes in a discussion of the "Guti period" (i.e. Post-Akkadian), he was easily misread by his successors. Porada (1965, 42, 231 n. 7) associates the style with the Gutti, but acknowledges that the stratification precedes the end of the Akkadian period. In a review of Frankfort (Porada 1958, 66) she says "cylinders made after the fall of the Sargonid dynasty ... found in Proto-imperial and Akkadian layers"! Amiet (1972, 192) dates them to approximately the same period as the post-Akkadian epoch, and this is cited by Collon (BM II, p. 120 no. 282). Buchanan (1966, 154) says "not ... earlier than the end of ED III" and calls them "Piedmont Early Dynastic". It was left to Boehmer (1971, 707-8) to restore the situation: "Sie einer Periode entstammen, aus der wir bisher keinerlei Nachrichten über die Gutti besitzen". The style has a distribution similar to that of the fired steatite seals of several centuries before; but it has no bearing on the Post-Akkadian question.

19. Comment on the transition between the Early Bronze Age and the Middle Bronze Age

In southern Mesopotamia, the transition between the glyptic of the Akkadian and Old Babylonian periods is carried by the Ur III style. This style is very rare in Syria and virtually absent from Tell Brak, though it is found at a number of important trading cities such as Mari and Kültepe. The earliest Old Syrian glyptic of the beginning of the second millennium, which I shall call "Proto-Syrian" (Amiet 1992, 13), shows some traits which are similar to Ur III glyptic, as well as others which appear to be native. My aim in this section is to see how far it can be derived from the Syrian glyptic of the Akkadian period⁹⁴.

Very little of the relevant material is stratified and the dating has to use negative and stylistic criteria, which are not satisfactory. The most important discussion is by Porada (1966, 254-6), where she uses the presence of the ballstaff as a criterion for the time which is later than the Ur III period⁹⁵. Accepting this, three major scenes can be identified which all probably belong to the twentieth century B.C., i.e. to the time which is later than Ur III and earlier than the lower level at Kültepe. First is the scene of a person, usually in a flounced dress, drinking from a pot through a tube, and most often with a type of table with a row of triangles on top⁹⁶, though another type of table with a rounded top and twisted legs also occurs⁹⁷. Second is a scene where a bull stands on top of a rectangular framework, often with the same seated person with a drinking tube, but usually without a table of any kind. There is usually a crescent in the upper field⁹⁸. Third, a bull standing underneath a panel or structure, usually with the seated person and sometimes with the drinking tube or the table, but without the crescent⁹⁹.

93 UEX 552 (PJ area, "Sargonid level"), 553 = BM II 282, no provenance.

94 See also Teissier 1984, 64. Since the Cappadocian impressions are probably later in date than the Proto-Syrian seals, traits which are common in the former are not necessarily derived from them.

95 Cf. also Collon 1982b, 129. Porada 1966, 247 cites stratified examples of the earliest second millennium from Alalakh and Hama (Collon 1975, no. 1, Copenhagen 125) and also a seal from Hama J2 which should be third millennium: but this design (Copenhagen 124) does not have the ballstaff or other features of the Proto-Syrian series. The fenestrated axe mentioned by Porada (1966, fig. c; cf. Amiet 1992, no. 15, Porada 1982, 286, fig. 3) is not a useful criterion because in such crude seals it is impossible to be certain that some other type of axe is not represented, e.g. the crescentic axe of the Akkadian relief from Halawa (Orthmann 1985, 471). The Montet Jar is itself one of the most important pieces of evidence. Saghih 1983, 50-1 believes that it was stratified after the last EB phase J at Byblos, but this is controversial. More useful are the scarabs within the jar, which Ward (1994, 199) has most recently dated to a time in the early 12th. Dynasty, and in any case earlier than the time of Sesostri I.

96 Ash 841, Marcopoli 361, BN 58, Porada 1966, figs. c, e; a simplified version of the table in Marcopoli 359, Porada 1966, fig. d.

97 Ash 842, Marcopoli 352, 353. CANES 1093 has a table similar both to Marcopoli 352 and to BN 58.

98 Marcopoli 355, 356, VR 506, Philadelphia 572, Ash 843, Yale 1175, CANES 1094, Frankfort 1939, pl. 40k, Porada 1966, nos. 81, 82, Marcopoli 362, Brussels II p. 141-2 no. 691. Only Porada 1966 no. 81 has a table, but this combination can occur in designs of other styles such as Marcopoli 417 and Van Loon 1990, pl. 122c.

99 Yale 1170, Louvre S468, Marcopoli 370, Frankfort 1939 pl. 40b, Amiet 1992, no. 157; with table Philadelphia 573, Porada 1966, fig. b; with drinking tube Frankfort 1939 pl. 40f, Marcopoli 354.

There are two basic types of table in this material. The first is a table with a flat top, which can bear objects. This kind of table occurs also in Anatolian and Syro-Cappadocian glyptic¹⁰⁰ and is perhaps first attested in the Brak seal 355. The same principle, however, including the objects on the table, exists already in the tables of the Brak Style¹⁰¹. A flat-topped table, often with several horizontal lines, occurs in a number of seals of the Post-Akkadian period¹⁰² and there is a similar form in some seals related to the "EB banquet" series¹⁰³.

Second, there is a table with a high conical top hatched with horizontal lines. This table exists in the Syrian Early Bronze Age, usually associated with a seated person¹⁰⁴, and Brak 508 is related. The same table exists also in the second millennium, in the sculpture of Ebla (Orthmann 1986, 483 fig. 156) and in Old Syrian seals of the 19th. - 18th. centuries (CANES 944, Marcopoli 457-459). It is not clear to which of these types several of the tables in the Proto-Syrian series belong. An impression from Alalakh (Collon 1975, no. 1) looks like a good case of the conical type. The twisted legs of the classic Old Syrian conical table (Marcopoli 457-9) occur also in the earlier seals Marcopoli 353 and Ash 842; but in Marcopoli 352 they occur on a table with curved shapes on top, similar to Porada 1966 fig. b and CANES 1093 which have legs of the kind usually found with the flat-topped type.

Therefore the distinctions of form cannot be readily related to distinctions either of meaning or of style; but a possible reconstruction is as follows. The banquet scene with a flat-topped table and often a harpist¹⁰⁵ was common in the Brak Style in ED III and the early Akkadian period. This may have been a source for the "EB Banquet" series which probably belongs mainly to the Akkadian period (though it shows no Akkadian influence). In this series the conical table was predominant; but the flat-topped table exists in some banquets from Syria and the south which are related to the post-Akkadian style. In the Proto-Syrian seals the banquet is normally expressed by the person drinking from a tube, who had occurred occasionally in all the earlier groups just mentioned. This person is usually associated either with a table or with a bull, lying either over or under a panel. These tables are usually of types which are similar to the Brak Style table, but the conical-topped table existed later in classic Old Syrian glyptic and a formal distinction between it and the flat-topped table is not easy to maintain in the Proto-Syrian series.

The similarities in the table forms support the idea that there is a direct line of transmission between the Early Bronze Age and the Middle, and moreover that this transmission probably occurred in Syria, since the closest similarities are in Syrian material (cf. Porada 1966, 249). This then gives us a basis for considering relationships both in the EB and in the MB material between this material and the cult of the bull. Once again, there are several strands to be considered, and the connections are not simple. As before, the concepts seem to come originally from Mesopotamia, but they were transformed and recombined in Syria.

First there is the bull cult of the Akkadian glyptic. The most important component is the "bull and gate" scene, which occurs at Brak in 356-7. The structure with wings, mounted on the back of a bull, is very similar to the scene shown on the Ebla Stele¹⁰⁶, flanked by bullmen and with a goddess within the structure. Persons with raised arms address a table/stand with two triangles on top in a register below, and further down there is a scene with a large drum and a seated person holding a cup. The symbolism of the Stele is generally related to the cult of the weather god. A similar scene occurs, probably slightly later, in the Samiya seal (FI 178). The female in the structure is above a bull which is being slain by a smiting god, and the lower register features bullmen. A Syro-Cappadocian version of the same scene was published by Porada (1992, 473 fig. 8) and Old Syrian versions exist in CANES 944 and BN 457. Although the Middle Bronze Age examples are few and stylistically various, the similarity with the "bull and gate" scene is too strong to deny. At present, however, only two known objects show EB Syrian versions of the scene¹⁰⁷. But, given that the Proto-Syrian group has an established relationship with the EB banquets, it is tempting to suggest that the hatched panel which forms a consistent feature of the earlier group (see p. 122) may be related to the panel which lies above or below the bull in the later group. This panel is not necessarily the same as the "winged gate" of the Akkadian and Old Syrian designs, since the Proto-Syrian group never shows it with wings. So we do not at present have an intermediary to explain how the "winged gate" was transmitted across the divide.

I noted that the Samiya seal shows the bull being slain, and this is another Akkadian scene which occurs at Brak (352) and elsewhere (Boehmer 1965, 60). A seal (BM II 192) shows it in relation to the epiphany of the weather god and his female companion. These connections were observed by Porada (1992, 465-6) and Van Loon (1990, 365-7) who interpreted them in the context of the cult of the storm god and his consort, the rain goddess. Further connections can

100 N. Özgüç 1965, pl. II:6, III:8, IV:11a, V:15a, XXVI:77; Marcopoli 417, 418. For variations in the different styles, cf. Porada 1966, 249; Porada 1982, 287.

101 219; Selz 1983, no. 159; Ash 816.

102 Porada 1966, 249, especially fig. j from Kültepe (Balkan 1957, fig. 12); Gawra I 59, Damascus 24 (Mari).

103 Ash 775, Brett 100. Ash 838 is hard to date.

104 Marcopoli 350, Chuera 1985, fig. 11; the drawing of Fugmann 1958, fig. 65 (3H 919) is unreliable.

105 Cf. in Syrian EB, Ash 775, Brett 100; in Syro-Cappadocian, Porada 1992, 473 fig. 8.

106 Matthiae 1987; Cluzan 1993, 166-167.

107 Amiet 1963, fig. 31; Frankfort 1939, pl. 40a. Philadelphia 573, where an animal is shown within the table, probably belongs to the second millennium.

be established with the stelai of the Ur III period. The Samiya seal shows the goddess in her panel above the bull attended by flying deities on each side, which recur in the stele of Ur-Nammu (Orthmann 1975, 203) and a relief from Mari (Amiet 1960, 227, fig. 10). The Ebla Stele shows a drumming scene which is similar to the stelai of Ur-Nammu and Gudea. The stele of Ur-Nammu has moreover a bull-slaying scene (Orthmann 1975, 205 fig. 38). Atlantid figures occur in a number of related Syrian monuments (Amiet 1960, 227) and may be noted especially in Anatolian glyptic such as N. Özgüç 1965, pl. XIII:39 (Van Loon 1990, pl. 122c), where they support a bull, in a design including the seated person with drinking tube, table and crescent.

The special importance of the bull cult is shown by several other monuments. Louvre S405, Guimet 33 and Brak 354 all show a seated figure, a large bull, and a scorpion. A painting from Mari (Parrot 1958, pl. E) shows an enormous bull behind the enthroned moon-god. I noted that the crescent is a very common symbol among the early second millennium Syrian seals. This association of bull and crescent occurs also in 353.

These connections show what we also found for the banqueting scenes, that the Syrian artists of the Middle Bronze Age were influenced by concepts of the Early Bronze Age, but whereas with the banquets the connections ran directly through the coarse native Syrian seals, we have here a bull cult which originates in Akkadian glyptic and appears in the Ur III royal monuments. Ur III art does not, however, so far as is now known, provide a means of transmission for the "bull and gate" scene, which we found was not easily accounted for in Syrian materials either. Problems of this kind led Porada (1992, 466) to propose that the doctrine of the storm god existed primarily in a verbal form, which was given pictorial form several times in different places; but I think the connections are solid enough to establish that the Proto-Syrian style was associated with, and probably partly derived from, the banquet scenes which form the latest group of native Syrian seals of the Early Bronze Age. These scenes provided the banqueting person, the table, and possibly the hatched panel which are commonly found in these seals, but the cult of the bull, which is the other main conceptual component, seems to derive from metropolitan Ur III and Akkadian sources, and was never important in the EB glyptic of Syria, though it does occur in a few provincial Akkadian designs, notably 355. It should not be assumed that the bull cult originated in the north west (Porada 1992, 466). The Syrian Animals style shows that the bull was not predominant in the western Syrian culture of EB III¹⁰⁸. It may be suggested that sites such as Tell Brak introduced the Akkadian cult of the bull to Syria at the same time as the older ED banquet scene was being transformed to suit local tastes in the "EB banquet" scene. Subsequently, probably in western Syria (to judge from the provenances of the Proto-Syrian seals) these two sources were combined, in a process for which we still lack evidence, to create the earliest stage of the Old Syrian tradition¹⁰⁹. Tell Brak does not throw light on developments after the end of the Akkadian period, and it may be better to look in places such as Ugarit which has yielded the largest number of seals of "proto-Syrian" type¹¹⁰.

20. Middle Bronze Age and Iron Age

567-573 are seals of the Middle Bronze Age. No complete collection of Mallowan's material from Chagar Bazar has been made here, but as with the stamp seals I thought it would be useful to publish the designs which had passed through my hands. The "Mardikh Style" of 567 has been studied by Mazzoni¹¹¹ and it may be doubted whether this example really comes from a site as far east as the Khabur region. The rest probably all come from the Old Babylonian culture of Chagar Bazar¹¹². They do not give a full picture of the glyptic of that era, lacking for example the hybrid Syro-Babylonian style of some of the impressions on tablets¹¹³.

The glyptic of the Late Bronze Age has been omitted from this volume¹¹⁴. 574-577 are a few designs of first millennium style, being neo-Assyrian (574-5)¹¹⁵, Urartian (576)¹¹⁶ and Achaemenid (577). A first millennium occupation of Tell Brak was not suspected by Mallowan, who thought 577 was Akkadian and did not publish 575; but Dr J. Oates tells me that late sherds are occasionally found there, including an Achaemenid/Parthian lamp from the CH topsoil, and that a stratum of that date has probably been destroyed by erosion.

108 De Miroschedji 1993, 214 notes that the archaic (Chalcolithic - EB) cult tradition of Palestine always features the ibex, not the bull. I owe this reference to Pirhiya Beck.

109 Even if the bull cult is related to Akkadian art, these transformations greatly increased its importance.

110 Amiet 1992, 13f.; for provenanced examples see Teissier 1984, 366 n. 3.

111 Mazzoni 1986, 171-3; Amiet 1992, 14; Collon 1987, 41, 57 n. 6.

112 Jesper Eidem tells me that the inscription of 572 could refer to a servant of Shamshi-Adad, who was active at Chagar Bazar.

113 See Collon 1987, 47-50, cf. Parayre 1990, 558f.

114 I have contributed an article to the forthcoming final report on the second millennium material from Tell Brak.

115 For 575, I am much obliged to H. Keel-Leu for references to scaraboids showing a winged disk: Jakob-Rost 1975, no. 292 (Assur); Lamon and Shipton 1939, pl. 73:3 (Megiddo); Herboldt 1992, Taf. 10: 24-28 (Assyrian impressions). I have been unable to check C. Cieslak (1992), *Altorientalische Rollsiegel ... Frankfurt*, no. 48.

116 Oates and Oates 1988. Note that this seal is pierced through the heads of the figures, and then broken across the line of the hole. The hole is presumably itself secondary.

B STRATIFICATION

A major problem with the Mallowan excavations¹¹⁷ is to relate the provenances written on the objects or the original labels to the stratification given in Mallowan's Report (Iraq IX). The objects do not have accompanying paper records and what is written on them uses a different system of site and room names from that used in the Report. There was originally a finds register which listed the objects, mostly under "F" and "B" numbers, but this has not completely survived. Among the Nimrud papers in the possession of Lady Mallowan, and now in the British Museum, were found two Field Registers, and a small notebook which describes some 20 graves G173-195, presumably from Chagar Bazar. The first Field Register probably belongs to Brak and Chagar Bazar in 1937. It contains "A" and "E" numbers (mostly Chagar Bazar) and "B" numbers (mostly Brak). The second Field Register is marked "Brak 1938". It contains a list of "F" numbers. These registers contain lists of objects only and I have never seen any field notes concerning the progress of the excavations. The registers do not cover all of the object numbers which existed and cannot be complete even for the 1937 and 1938 seasons. There may have been more than one register in use so that several people could work on them at the same time. Provenances cited below without a reference are written on the objects. 'JNP Names' is a sheet of paper written by Mallowan giving correspondences in the area of the Palace, shown to me by Dr J. Oates. The Ashmolean seal catalogue was written by Buchanan (1966) in Mallowan's lifetime. He made some effort to understand the provenances but there is little in the catalogue that cannot be derived from the Report¹¹⁸.

The main excavation areas are shown on Plate II¹¹⁹. The Catalogue should always be consulted for the details of provenances; information on conflicting sources is given there. Each site has independent stratum numbers, with Level 1 at the top. In this book Level 1 at Brak means the end of the third millennium occupation; later strata only exist in the HH site and are not discussed here.

1. List of seals by stratum

Designs are sometimes listed here more than once, if impressions of the same seal have been found in different places; bad contexts are generally not mentioned if other impressions of the same seal come from better ones, and only the lowest provenance is cited if there are several impressions of the same seal from successive levels of the same site.

1.1 Provenances not from Tell Brak

1.1.1 Designs without any provenance

10, 18, 24, 28, 39, 43, 61, 72, 124, 163, 167, 227, 294, 304, 313, 332, 392, 418, 445, 446, 458, 459, 520, 524, 533, 539, 540, 553, 569, 572

1.1.2 Bought in the Khabur region:

56, 57, 65, 275?, 532

76 and 386 probably come either from Brak or from Chagar Bazar

¹¹⁷ *References:* Mallowan Correspondence, Mallowan Khabur Records, Mallowan Photographs and the Field Registers are in the archives of the Department of Western Asiatic Antiquities in the British Museum.

¹¹⁸ Dr Moorey tells me that Buchanan tried to get access to the site records through Mallowan, but was unsuccessful.

¹¹⁹ See also for Mallowan sites, Iraq IX, pl. LVI; for Oates sites, Oates and Oates 1994, 169 fig. 1.

1.1.3 Chagar Bazar

The stratification of Chagar Bazar is described in Iraq IX, 81-87, and Iraq IV, 95. The earliest phase of Level 1 contained the tablets of the Old Babylonian period. Levels 2-3 belonged to the stoneware period, and levels 4-5 to the Ninevite V period. Most of the material below level 5 belonged to the Halaf period (Iraq IV, 94). As at Tell Brak, Mallowan used site designations which were not subsequently used in his reports; and even in the reports the limits of the site names are not easy to understand. The architectural sequence is longer and less clearly defined than at Brak, and the glyptic is itself an important marker for the chronology. Crucial here are the Old Babylonian impressions **570-573**. **571** was actually found with the tablets in the AB site, while **573** comes from HL level 1. I cannot identify where site HL was, but designs **2** and **428**, which also come from there, should probably not be assigned a context earlier than the OB period. **570** is more difficult, as it is said to come from BD II which should be in the stoneware period. This is best explained as an excavation error¹²⁰.

"TD" was unfortunately used as a site name both at Brak and at Chagar Bazar. **365** and **428** are probably the only seals from the TD at Chagar Bazar¹²¹, **365** in an OB stratum. The Field Register says **428** came from HL, so if this is not an error, HL may have been an area later subsumed into TD.

Site CT was a name for part of the BD site, as is shown by **134**, **146**, **219** and **343**. **343** indicates that CT III = BD 2, and not earlier than the Akkadian period; while **146** and **219** show that CT II = BD 2. We should therefore perhaps assign all of the CT glyptic to an Akkadian stratum except **526** which might be earlier. An interesting note in the graves notebook preserved in the British Museum describes the discovery of a docket, probably therefore **146** or **219**, underneath a stone floor in association with several pots, apparently of stoneware period types, a horse figurine, a "chariot wheel" and a double barrel lug handle. Contrary information about this discovery is given in Iraq IV, pp. 151, 154, one suggesting a provenance in BD 2, the other in the transition BD 2-3. It is not clear how far these "provenances" are influenced by Mallowan's understanding of the date of the seal-impressions and the inscriptions. These dockets should therefore not be used to establish the date of the transition between BD 2 and BD 3.

Only two objects may be stratified earlier still. **5** is reported from the Ninevite V grave G71 (Mallowan 1936, 29). This grave may date to the middle of the Ninevite V period¹²². **518** is the only cylinder from the Prehistoric Pit M. Although Mallowan's (1936, 29) alleged source in the Halaf level 7 may be rejected, it may still have originated in an early stratum.

"T" and "A" numbers always come from Chagar Bazar, except Iraq IX p. 149 pl. 24:15: "A103" (**306**) which is from Brak¹²³. I have regarded numbers with these sigla as sufficient evidence for a provenance at Chagar Bazar. **567** is a seal in the "Mardikh style" of western Syria in the Middle Bronze Age. The label could refer to Chagar Bazar as "CB"; on the other hand, if "1932" is a date, then it was found too early; or the label might even not refer to this object. Its provenance must be regarded as completely unreliable.

We may summarise the archaeological contexts of the glyptic from Chagar Bazar as follows:

Perhaps from Chagar Bazar: **567??**

Chagar Bazar, no convincing context: **1**, **411**, **438**, **570**

Old Babylonian or later: **2**, **52?**¹²⁴, **365**, **419**, **428**, **568**, **571**, **573**, **574**

Stoneware period: **78**, **101**, **134**, **146**, **219**, **343**, **477**, **492**

Perhaps earlier than Akkadian: **518**, **526**

Middle Ninevite V grave: **5**

1.1.4 Designs from other sites

Tell Kashkashok (courtesy Dr. A. Suleiman): **23**, **403**, **404**, **482**

Tell Abu Hujeira (courtesy Dr. A. Suleiman): **405**, **410**, **515**, **525**

Tell Arbit: **128?**, **483**

Tell Germayir: **429** (near GG 24), **491**

Tell Jidleh: **529** (transitional MBA/LBA)

Tell al-Ma'az (near Tell Barri): **576**

Tell Mozan: **500**

Kish: **566**

120 The Field register describes the design as Akk-Ur III, so the "provenance" may mean no more than that such material should come from level II.

121 Possibly also **76**.

122 It may contain Karababa Painted Ware, cf. Roaf and Killick 1987, 216; Conti 1993, 385 n. 27.

123 This must be an error as A103 is used for a pot in the Field Register.

124 Although the BM register says "Arbit" the combined evidence of the Field Register and the Report is credible.

These sites are all in the Khabur region except Tell Jidleh in the Balikh valley and Kish in northern Babylonia. Dr Suleiman's seals have the following provenances: Tell Kashkashok: Uruk level (**23**); Ninevite V (**403, 404, 482**); Tell Abu Hujeira: ED III (**405, 410, 525**); Akkadian (**515**). **128** is ascribed to Tell Turzi in the BM register, but a provenance in grave TAG 20 at Arbit may be more likely. This rich vaulted grave contained a dagger (Mallowan 1937, 127, fig. 13:3) of a type known in ED III and later (Philip 1989, 137). Mallowan considered the provenance of **429** to be earlier than Chagar Bazar level 3 (1937, 116), i.e. probably Ninevite V. The Kish impression came from a trench in which no stratification was recorded. A late Akkadian cemetery and archive were found in the area (Moorey 1978, 89-92).

1.2 Provenances from Tell Brak

1.2.1 Site unknown

The evidence that these designs come from Tell Brak is not always conclusive and the catalogue should be consulted in each case.

No area of origin given: **36, 149, 151, 171, 381, 421, 474, 519**

Area of origin uncertain (each of these objects is said to come from more than one site (see Catalogue): **92, 319, 335, 409, 527**

"F" and "G" nos. (all known "F" and "G" nos. come from Tell Brak): **337?, 444, 452, 490, 504**

Tell Brak surface finds: **77, 273, 472, 501, 546**

According to the Field Register B210 was used for 21 seal-impressions, mainly from the Palace site at Brak. 17 impressions were found in Aleppo with this number, of which 11 came from the Palace site, **82** from HF and **319** from WP or the Palace, so the four impressions with no provenance except B210 probably came from Tell Brak: **283, 339, 379, 499**.

1.2.2 CH

1.2.2.1 Mallowan excavations

CH is usually written CR.H. (i.e. 'Crest Houses') on the objects. The site was opened on the top of the hill, or crest, east of, and above, the Palace, but eventually covered a large area reaching some 70 m. down to the east wall of the Palace. A 'North Extension' apparently included Room 6 at the eastern end (Iraq IX p. 147, no. 13) and this may indicate a skewed understanding of the orientation of the site by the excavators. Room 13, which is at the west end of the site, is described as 'south' in the provenance of the copper cache (Iraq IX p. 166) and this may result from the same distortion.

The area described as CH in the Report was probably originally opened as two separate sites which were later combined. CH itself was at the top of the hill, while the area down the slope beside the palace was known originally as FNP, the Wall Complex or Terrace Houses. A street and houses are described separately in Iraq IX, p. 70, before the beginning of the section on CH. They are located at the western end of the CH site as shown on the plan, around room 14. **577**: 'Houses E. of Div. St. -1 m.' is published in Iraq IX pl. 23:3, p. 145 as 'CH, debris N. of room 14', while **86**: 'Houses E of Division Street' = Iraq IX pl. 23:8, p. 146: 'CH west end'. These may indicate that the street between the Palace and the Terrace Houses was called 'Division Street'. It is important to distinguish the Terrace Houses from T.H. Ct. which was a court in the Palace as described below. **20** and **280** are from 'JNP Terrace Houses', showing that this area was near the Palace. Another impression of **280** was from 'CRH S. side': impressions of the same seal are normally, though not always, found in nearby places. Confirmation that the Terrace was outside the Palace on the eastern (CH) side is provided by **55**: 'JNP Terrace edge outside E. wall'. Another impression of **55** is from 'FNP Top NE corner of house in wall complex'. Several sealings associate FNP with the Wall Complex (or WC HO, i.e. Wall Complex Houses): the wall is no doubt the massive outer wall of the Palace.

These names probably belong to the 1937 season. BM numbers in the 125,000's were registered in 1937, and in the 126,000's in 1938. No 1938 numbers come from FNP or the Wall Complex, but there are six objects from there with 1937 numbers, and only two from CH. The two CH cases both have unspecific provenances as though little was known of CH at that time. Nearly all of the Ashmolean sealings were registered in 1939, but one of the exceptions, 1938.101 from JNP, bears the same design **55** from 'JNP Terrace edge' and 'FNP', as cited above. The plan in the Mallowan Photographs II M717 shows what is probably the extent of the site at the end of the 1937 season. The whole CH/FNP area is shown (unlabelled) as a long strip extending east from the Palace and the area may only have

been slightly enlarged later. It is treated as a single area in the 1937 field report (Mallowan Khabur Records, 115-137), and these interim names seem to have already gone out of use by this time.

Buchanan (1966, 57 no. 292; 63 no. 216) and Iraq IX p. 70 show that the Altar Room, or chapel, was room 13, and that the Oracle Room was room 15. Buchanan does not identify the Copper Room¹²⁵, but it was presumably the source of the copper cache described Iraq IX p. 166, pl. 31:1 which was near Room 13. Against this, impressions of **239** come from the Copper Room and also from Room 6 at the opposite end of the site. Buchanan suggests that the Burial Room is room 12 (p. 153 no. 812), but burials are cited both there and in the room east of the chapel, which should be room 11, and elsewhere (Iraq IX p. 70 and p. 71, bottom). No burial seems to have been very striking: they are children with few or no grave goods. **543**: 'W. Ox R. Burial level' may imply that the Ox Room was near here, if the burial referred to is the same.

Mallowan says that he found three levels in a depth of 1.50 m. (Iraq IX p. 72). Two or three floors were found beneath the chapel floor in room 13: p. 72, pl. 21:5 'three floor levels below the ... chapel floor under room 13'; p. 134 [referring to the same object] 'the third mud floor from the top'; p. 166, copper cache found 1 m. above an Early Dynastic floor and 1.50 m below the surface in this area. Either, therefore, he found four levels, not three, or some of these provenances are misleading. **557**: 'altar rm -1.50 m. below brick floor' confuses the issue still further as this brick floor is not mentioned anywhere else – indeed all the floors are described as mud in one of the citations above. As the chapel floor was not on the surface (see the photograph, Iraq IX pl. 48:7) this location should also be in the 'fourth level'. Similar depths were reached at the other (east) end of the site where BM 126376 (**239**) was from a depth of 2 m. and **218** was from 1.50 m. below a Sargonid floor (unless this floor was on the surface).

Mallowan dated the top level to Ur III and the other two to the Akkadian period with pre-Sargonid material beneath, but the Oates excavations found four upper levels with Akkadian material so Mallowan may have been mistaken.

On the objects, the levels are given as A, A2, B, and B1. The simplest understanding of this is: A (=A1) = Ur III; A2 = upper Akk.; B = B1 = lower Akk. This fits Buchanan's statements (Ash I nos. 764, 800, 804). The only problem is **195**: 'CRH a(2)' = Iraq IX p. 146, pl. 23:7, 10: 'debris in the earliest Sargonid level'. **561** is the only object from level C.

Some objects are related in level to the 'burial level' and the 'copper cache'. Mallowan implies that the burials are 'associated with' the chapel (Iraq IX p. 70) which would mean that they belong to level A1 (see Iraq IX pl. 48:7, caption: 'chapel of the third Dynasty of Ur'). Buchanan thought that the burials were lower: p. 153 no. 812: '-1 m. below burial level' is described as 'possibly pre-Akkadian'; and p. 142 no. 765: 'burial level' is also called 'possibly pre-Akkadian'. It is not certain that all of these burials are the same. The description of the copper cache, Iraq IX p. 166, implies that it was found beneath a Sargonid floor, 1.50 m. below the surface. This should be level B.

It is therefore hopeless to expect too much precision in understanding Mallowan's stratification, but some lower and "presargonid" contexts can be recognised.

Levels B and C: **79, 400, 557, 561**

Near "copper cache"/ "presargonid": **239, 534**

Below Sargonid floor or below A2: **218, 412**

"Earliest Sargonid level" A2: **195, 280**

Excavated in the top metre or in contexts which may not be earlier than the top stratum: **86** ("early debris"), **188**¹²⁶, **236, 355, 361, 402, 543**

Level A or "Ur III" level: **193, 197, 350**

FNP etc: -1m: **129, 205, 217, 577**

CH surface, sub-surface or "top" or no depth given: **114, 136, 145, 357, 358, 385, 391, 440, 528**

FNP etc, top or no depth: **8, 20, 55, 272, (280), 298, 322, 341, 351, 390, 399, 409?**

1.2.2.2 Oates excavations

The CH excavations were re-opened in order to establish a stratified sequence tied to the Naram-Sin Palace. The results are summarised in Oates and Oates 1994, 167-8 for the later levels. The fourth millennium sequence which lay below this is not discussed here as the glyptic from it is not included in this catalogue.

An important destruction level was discovered in level 6, which, with equivalent material from other sites, comprises the earliest significant stratified assemblage of glyptic considered here. The rest of the glyptic from CH does not come from such assemblages, but can be placed in the stratigraphic sequence. Level 4 is stratigraphically equivalent to the Palace, and is therefore Late Akkadian. The top two levels contained post-Akkadian and later pottery.

¹²⁵ 1966, 136 no. 750; p. 151 no. 806, copper not mentioned.

¹²⁶ As explained above, "burial level" cannot be understood.

For the correlation of the Oates excavations with the Mallowan ones, one should note that Mallowan did not claim to have dug deeper than c. 2m. This would represent only the first two levels of the Oates excavation (Oates and Oates 1994, 167), which might imply that Mallowan never reached the Akkadian levels. However, the Oates site was much smaller than Mallowan's site. The section D. Oates 1985, 162 shows that the Oates site was about 15 m long, while Iraq IX pl. LXI shows a site about 60 m long, both adjacent to the Palace. Therefore the Oates site is located mainly in the area originally called "Terrace Houses" by Mallowan. The whole area was sloped in antiquity and the depths of levels vary significantly in different places (Iraq IX p. 70, cf. D. Oates 1985, 164-5). Therefore it is quite credible that Mallowan may have reached Akkadian levels at shallow depths in other parts of the CH site (cf. p. 167).

No context: **469, 495, 551**

Level 3, fill: **98**

Level 4, floor: **179**

Level 5: **222, 471**

Level 6, in floor: **95, 184, 517**; destruction: **138, 152, 180, 484**

Below level 6: **104, 478**

1.2.3 ER

1.2.3.1 Mallowan excavations

ER ('East Ridge') was situated east of CH and was very similar in its nature. It seems to have been a long test strip originally like TC and WP. Little was found at the SW end, but after finding a building at the other end Mallowan widened the trench there. The tail running SW can be seen on the plan Iraq IX pl. LVI, but no structures are shown in that area in the site plan Iraq IX pl. LXIIA. **248**: 'New East Ridge W end' = Iraq IX pl. 23:12, p. 147 'west of room 7', shows that that area, and perhaps the whole north end of the site (rooms 7-10) was part of the extension.

There were three levels in the top two metres which Mallowan dated to the Ur III, Sargonid, and Early Dynastic / Early Akkadian periods respectively (Iraq IX p. 72-3). In the Oates excavations level 4 was the ED III destruction, and we should regard the three levels above as covering the Akkadian and post-Akkadian period. On the objects, 'Sargon' seems to apply consistently to level 2, though this cannot be proved in all cases.

ER is unusually difficult to disentangle. Several sealings are related to a 'copper spearhead' but no such object is mentioned in the Report. Other objects are related to the 'Tablet' or the 'Contract Room' but this cannot be certainly identified. Mallowan found four tablets in ER, as follows¹²⁷:

F. 1157: Field Register: 70 x 50, ER west end, below wall foundations, "appears to be the efforts of a scribbler" = Finkel 1985, 200, c19¹²⁸; now in Aleppo.

F. 1158: Field Register: 70 x 70¹²⁹, ER in fill against wall face above foundations.

F. 1159: Field Register: 62 x 35, complete tablet, 26 lines, from Contract Room, ER west end = Finkel 1985, 199 a2¹³⁰.

F. 1162: Field Register: diam. 80, half of circular tablet level a(2)? = Finkel 1985, b3, now in London.

Iraq IX, 73 says that F. 1159 came from room 5, which should therefore be the Contract Room (marked on plan, Iraq IX pl. LXII A), and the other three from room 6. The sealing BM 126361 (**476**): 'Sargonid -1.20m below scribblers tablet XY + on S side flimsy E+W wall' = Iraq IX pl. 23:9, p. 74 level 2, p. 146 'against footings of Sargonid wall, room 9', confuses the issue as the "scribbler's tablet" is F. 1157 and the Field Register says that F. 1157 and 1158 were found south of the flimsy E-W wall. Room 6 and Room 9 cannot both be south of the same wall! A broken fragment now in Aleppo is labelled 'E. Ridge Con[tract] Rm' and may not have been registered by Mallowan (cf. Finkel 1985, 200 nos. 5, 8?). Both F. 1157 and F. 1159 are described as from the "west end" in the Field Register, so it is confusing to find sealing **216**: 'ER E end -70 cm below tablet' = Ash I no. 814, p. 153: 'Contract Rm? c - .70 m below tablet'. Room 9 might be described as "east end"; it is hard to see how rooms 5 or 6 could be.

Mallowan says (Iraq IX, 73, 75) that all four tablets were found on the floors of level 2, so **216** and **476** should be in an earlier level. Another impression of **476** was found in 'ash pit c. -4.50 m antedating existing walls', but the seal does seem to belong to level 2 as there are several other impressions of it with the provenance 'Sargon XY'. 'Sargon'

¹²⁷ Dimensions and other information are from the Field Register, but I have not quoted everything written there.

¹²⁸ This tablet is inscribed on one face and one long side; it has two rows of little holes on another side.

¹²⁹ The large size fits Finkel 1985, 199 b2, which is registered "F. 1158" in London. Gadd seems to have mistakenly described this tablet as F. 1156 which according to the Field Register was 40 x 45 mm.

¹³⁰ Said to be in Aleppo, but I saw only 3 complete tablets there, = Finkel b17-19.

is most likely to refer to the tablet level, i.e. level 2. The top of the pit may not have been properly identified. **229**: 'Lowest [lev.] in ash pit' might come from the same location, in which case Buchanan's surmise that its provenance is early (1966, 150, no. 803) does not follow.

Mallowan dug below 2 m in a few other places. There were burials at 2.6 m. in room 8, apparently dug down from the level 3 floor (Iraq IX p. 74). **248**: 'W end ash and debris layer c. -2.25' = Iraq IX pl. 23:12, p. 75 'underlying level 3', p. 146 'beneath Sargonid foundations west of room 7', indicates deep excavation outside the area with defined architecture.

A similar sounding further east is indicated by **90**: 'ER centre c. -2.5 m' = Iraq IX pl. 23:15, p. 75 'possibly level 2', p. 147 'Sargonid debris E of room 6', though this is rather deep for level 2. **373**: 'ER nr [x x] -2.50' = Iraq IX pl. 23:16, p. 147 was found in the same area. This may be level 3 as another impression of the same seal was found in 'ER Ash level of bread ovens E of big tablet fragment'. Bread ovens are described in level 3 (Iraq IX p. 73). A third impression from 'E Ridge Sargon level (1)', on the other hand, should be level 2 and I do not think this design can safely be assigned earlier. I am not sure what '(1)' means, but such numbers sometimes refer to a series of impressions found together. The 'big tablet fragment' is easily explained as we are east of room 6 in which three tablets were found.

Earlier than Level 2: probably only **248**.

Level 2: **285**; below "Ur III" level: **288, 310**; Sargonid foundations: **229?**, **237**; "Sargon": **105, 142, 144, 271, 320, 541, 554**; Sargon XY/room 9?: **141, 476**; depth c. 2m: **9, 456, 466?**, **511, 531?**; Contract Room: **216, 277, 367, 396, 508**; near Tablet Room: **84**; east of room 6: **90, 373**; Sargon below copper spearhead: **204?**, **336**

Level 1: "3rd. dyn. level": **116, 224, 303, 393, 398, 451, 510, 564**; top floor or top level: **369, 394, 556**

ER surface, sub-surface or "top" or no depth given: **122, 123, 198, 254, 323**

1.2.3.2 *Oates excavations* (D. Oates 1982, 194):

Level 4 ("ED III destruction"): **113, 147, 454**

Level 2 (Akkadian): **263**

No context: **308**

1.2.4 The Palace of Naram-Sin (JNP)

1.2.4.1 *The site*

Mallowan found the walls of two palaces lying one on top of the other. The upper palace had almost the same plan as the lower one, but its walls were thinner and less well made. Both palaces were preserved over a sizeable area to a height of several metres¹³¹. Mallowan believed that virtually all of his walls were subsurface foundations. If this was so, then he must have excavated massive foundation trenches like the one in the CH site, but no such trenches are shown on his sections. Since doors are nowhere shown on the plan or mentioned in the report (except in room 28) there is reason to believe him: foundation walls would not have doorways.

It is explicitly stated that almost no floors were found in the Palace. The first phase floor is said to have existed only in court 2 (Iraq IX p. 65), and is only marked there on the sections, even though object provenances frequently refer to floors elsewhere in the building¹³². Stores of grain are said to have existed in rooms 10, 13 and 16 (Iraq IX p. 64): how could they be *in situ* if the floors were not preserved? The Court 2 floor may only have been noticed because it was made of cement. The second phase floor is located three metres above this level, on the evidence of a crude stone stairway found in a doorway leading to room 28 (Iraq IX p. 69). The floor of the upper structure was not found anywhere else owing to denudation of the surface.

If, as Mallowan says, the first palace collapsed into a rubble layer three meters thick¹³³, then that layer would have encased and preserved the lower parts of the original walls to that height, and with a minimum of cutting down to find a solid brick course they could have been used directly as foundations. If, furthermore, the upper walls were built in foundation trenches dug down to the level of the original floor, why was that floor not found by Mallowan under the rubble in the middle of the rooms where it was not dug out during the reconstruction? If, against this, the later builders dug out the whole of the collapse so that they could destroy the whole of the original floor, why then did they lay their own new floor so much higher?

¹³¹ This seems to follow from the sections Iraq IX pl. LIX.

¹³² Rooms 10, 11, 22, Court 3: Iraq IX p. 144, pl. 22:13; p. 146, pl. 23:5, 6; p. 147, pl. 23:18; p. 150, pl. 24: 16.

¹³³ D. Oates 1982, 188 shows that the floors were probably at several levels in different parts of the building, so 3 m. may be a maximum separation.

Could the structure have been a high terrace with two storeys¹³⁴? This would explain the massive thickness of the walls and the lack of doors; but it would raise the possibility that the upper and lower phases are just different parts of the same structure. This is unlikely because of the floor material belonging to the lower structure. In short, the Palace does not make sense as we have it, but it is not easy to find an alternative explanation. If Mallowan's interpretation is correct, he should have excavated five layers:

1. Upper level occupation material. On or above the modern surface, eroded topsoil. From his account, evidently not a satisfactory stratigraphic layer – much less so than the top levels in CH, ER and FS. No material from the Palace comes from a secure source in this level.
2. Fill of the lower level, contaminated by the foundation trenches of the upper structure.
3. Occupation of the lower structure, either in Court 2 only or elsewhere as well.
4. Construction of the lower palace in huge foundation trenches.
5. Earlier material, cut by the trenches, and occasionally excavated by Mallowan.

This sequence does not include the Eye Temple. The Palace was not preserved above it and it can be treated as a separate site. Mallowan's failure to recognise or even mention the foundation trenches which must have existed according to his account means that everything which he excavated in the Palace area must be treated as possibly contaminated.

The sheet 'JNP Names' gives the following correspondences:

South Room B (S of Old Court)	= Room 18
Old Court	= Court 3
New Court	= Court 2
Central Bastion	= E flanking wall of Palace
Sandwich Room	= Room 20
Pit Shaft	= new shaft excavated in 1938 subterranean chambers
3rd South Room or Rm S of T.H. Court	= Room 24
1st. Line Chambers E. of Gt. Ct.	= Rooms 4, 6, 8
2nd. South Room i.e. S. of New Ct.	= Room 12 or 13
North Platform	= Palace Front
Chamber W. of New Ct	= Rm ?
Exit Rm	= Rm 19 ?
Tablet Rm	= Rm 14
Bead Rm	= Rm 16

This enables us to understand the geography of the Palace as it appeared during the excavation. The 1937 site plan (Mallowan Photographs II M717) shows a thin strip probably along rooms 10, 12, 17 with a bulge at the west end presumably around room 32. The north edge of the Palace and the east wing (rooms 1-6) may have been added in 1938. Excavation presumably progressed from Old Court (court 3) to New Court (court 2), and SW to the Eye Temple. Great Court is obviously court 1, while the TH Court is apparently Court 4. The impression 327: 'JNP T. Halaf Ct. Top M' indicates that this means 'Tell Halaf Court'. This was not a stratum of the Halaf period but merely a place where some Halaf pottery was found out of context, as it may be still in the Palace area today (cf. Iraq IX p. 244, pl. 79:4). Buchanan suggested that the provenance was in Courts 3 or 4 of the Palace (Ash I p. 66 no. 357) but the sheet 'JNP Names' implies that T.H. Ct. was Court 4 as a room south of it is identified as room 24(?). I cannot guess the location of "Court 5".

The wall south of rooms 10, 12, 17 was called the Spine Wall as is shown by 387: 'N. side of spine wall steps' = Iraq IX pl. 24:11, p. 148: Room 17; and 120: 'JNP spine' = Iraq IX pl. 24:13, p. 149: Room 12. Even today this wall is the most recognisable feature of the Palace, resembling a spine with its short cross-walls. The 1937 plan shows contours with a summit probably in the area of Room 19, though the sections Iraq IX pl. LIX give a somewhat different picture with a higher summit shown over Room 9. If Room 19 was the 'Centre Hill' then 372: 'S side of spine wall, centre hill' may refer to Room 18. 521: 'JNP Hill Top S of N Hill. Crest Wall' is puzzling as it implies that there was another summit; but this may mean the end of the spur running down over the Eye Temple.

The Line Chambers are not by the Spine Wall, but are E. of Great Court, so the first line is rooms 4, 6, 8 and the second line is rooms 3, 5, 7. Some other rooms can be identified from objects, including Room 13 in 281: 'JNP Mo.

134 The one place where a foundation trench did certainly exist, i.e. in the CH site where it was found by the Oates expedition, need not disprove this suggestion, because this was the only side where the pre-existing tell was higher than the Palace floor. The builders may have cut back a spur of the tell to clear their site.

Hassan ash room' = Iraq IX pl. 24:17, p. 150: Room 13. **329**: 'Long Room E of New Ct' = Buchanan 1966, p. 67: 365 'Room 9' shows that the Long Room is room 9. The latter is more likely as a depth of 3 m is not recorded for any other room in the Palace (see below). I cannot identify the Plaster Room, the source of **395**. **232** comes from the 'outdoor chamber' on the north side of New Court (Iraq IX pl. 22:13, p. 144: room 11) as the Field Register says; the museum register must be a misreading of Mallowan's label¹³⁵. "JNP Names" says that the Bead Room was Room 16, but **352** suggests that it was room 22 (Iraq IX p. 146, pl. 23:6). Beads are not reported from either of these rooms (Iraq IX p. 66-7).

The Central Bastion is given above as the E flanking wall of the Palace. This is apparently contradicted by **311**: 'Centre Bastion W end JNP', but 'W end' here might refer to the bastion rather than to JNP. 'West End' is not otherwise used on JNP objects, though we hear of the west end of the Palace in Iraq IX p. 149, pl. 24:14.

The East Extension is no doubt in the general area of rooms 7 and 9. Impressions of **559** come from this area and from the Long Room mentioned above (room 9). "JNP Names" says that the "2nd South Room" was room 12 or 13? south of New Ct., while the "3rd south room" was room 24? south of TH Ct. These rooms are not, as we might expect, adjacent; and this situation is confused still further by **85** from the "2nd South Chamber east of Great Court" which sounds more like room 6.

338: 'JNP packing N [F?A?C?]E of zigg', despite its poor preservation, cannot be read 'JNP, packing N Terrace' as in Buchanan 1966, 74: 404. This 'N Terrace' does not otherwise exist. The source is no doubt in the Eye Temple area though disturbed, as the seal is Akkadian. The N Platform is given in JNP Names as the Palace Front, but this is not necessarily the north face of the Palace, very little of which was found. It may rather be the west face where Mallowan reconstructed the entrance of the Palace. This is still north of the other platform, i.e. the Eye Temple. **33**: 'JNP N Platform' is a stamp impression which may have originated in the Eye Temple so a provenance not far from there would be reasonable. **131**: 'JNP soft soil by circular corner' cannot now be understood, but there is a curved projection from the Palace west of room 27, near the Eye Temple, and the word 'corner' is otherwise only known in **3**: 'JNP [x x S? W?] corner' which may be another archaic impression from the Eye Temple.

For the reasons given above, the stratification of the Palace is not conducive to assigning objects to separate levels. One cannot guarantee that indications such as 'pre-Sargonic' rest on stratigraphic evidence. Such a description might mean no more than that there was glyptic present which Mallowan thought was pre-Akkadian.

The depths written on the objects are always 2m or less, except in New Ct, TH Ct, and Room 9; but the sections Iraq IX pl. LIX imply that much greater depths were reached elsewhere. Buchanan understood the stratification of New Court from **353**: 'New Court -2m' = Iraq IX pl. 23:2, p. 145: Court 2, floor. On this basis, he ascribed the New Court objects, whose depths range from 1m to 3m, to levels above, on and below the floor.

Unfortunately none of the objects from Room 9 with a depth in the range between 1m and 3m indicates where the floor was, and we cannot estimate how far the floor depth of 2m in New Court was valid for other parts of the building (cf. D. Oates 1982, 188). In the list below, "BF" means below footings or below floor.

1.2.4.2 *Index to glyptic from the Palace*

Court 1 (Great Court): **46, 430**; top level: **372**; BF: **41**

Court 2 (New Court): **44, 67, 74, 158, 316, 522, 563**; upper fill: **297, 370**; ash above floor: **389, 486**; -2m/floor: **296, 353**; below 2m: **47, 59, 73, 89, 182, 187, 206, 287, 289, 374**; BF: **135, 279, 424**

Court 3 (Old Court): **326, 380**; black ash on floor: **321**

Court 4 (Tell Halaf Court?): **327, 340**; 2-3m: **401**

Court 5 (=?): **26, 68, 83**

Room 3, 5, 7 (2nd Line Chambers): **408, 415**

Room 4, 6, 8 (1st Line Chambers): **118, 560?**

E of Gt. Court: **31, 69, 85**

E side: **309, 311, 334**; -2m: **62, 460, 555, 559**

Room 9 (Long Room): **331**; BF: **305**; 1-2m: **356**; 2-3m: **247, 324, 563**; -3m: **284, 293, 559**

Room 10, 12, 17 (North of Spine Wall): **120, 330**; upper footings: **387**; floor: **245**; BF: **427**

Spine wall: **97**

Room 11 (Chamber N of New Ct / Outdoor Chamber?): **378**; footings: **232**

Room 12 or 13 (2nd South Room): -2m: **563?**

Room 13 (Mohammed Hassan Ash Room): black ash: **281**

Room 13, 18 (South of Old Court): **507**

¹³⁵ The handwriting makes this quite credible. The BM policy of copying the original labels into the register and then discarding them was thus unfortunate. Original labels, which now survive mainly in Aleppo, are more easily interpreted, with experience of the excavator's methods.

Room 16 or 22 (Bead Room): footing: **352**

Room 19 (Exit Room?): -1.5m: **266?**; BF: **15**

Room 20 (Sandwich Room): above footings: **312**

Room 24 (3rd South Room - Room S of TH Court?): **328**; upper fill: **388**

Room 29 (Stair Room): **260?**, **368?**; level with earlier foundation: **512**

Plaster room: **395**

Ash room: **349**; by footing: **157**

West end: in foundations: **91**

Palace area: **33, 50, 108, 119, 131, 132, 153, 161, 176, 178, 181, 230, 238, 252, 265, 267, 268, 270, 292, 306, 333, 360, 364, 366, 371, 375, 453?, 473, 487, 497, 513, 521, 542, 549, 565, 575**; - 1m: **103**; floor: **329**; BF: **250, 92, 319, 335, 409** may come from JNP but are also said to come from other sites

1.2.5 Eye Temple

The Eye Temple was discovered by Mallowan at the south-western end of the Palace site. A massive platform, six metres deep, and comprising at least four building levels, extended at least 40 m from the temple itself (Iraq IX p. 53). The excavated temple was originally thought to belong to the Uruk III period, and its predecessors, marked by successive layers of red and grey bricks, to stretch further back into the Uruk period. It is now known that "eye idols" existed in the Middle Uruk period (Oates and Oates 1993, 176), and that the stone footings or buttresses discovered by Mallowan are Early Dynastic (Oates and Oates 1994, 170). Mallowan did not excavate the platform except at the edge and in an elaborate system of robber tunnels dug into it apparently at the end of the third millennium, which were reached by eight shafts dug down from the Palace area (Iraq IX p. 51-2). The bricks were exceptionally hard to excavate (Iraq IX p. 56) and this contributed to the stability of the tunnels.

An enormous number of late prehistoric amulets, seals and beads was found embedded, presumably for ritual reasons, into the structure of the platform; but because the excavation was in the old tunnels little was found *in situ* except in the latest temple building. There is later material in the filling of the shafts.

The 1937 field report (Mallowan Khabur Records 130-133) records the discovery of the stone buttresses and the side chambers of the Eye Temple, though its character was not entirely understood then. These chambers are probably Rooms 1-4 (Iraq IX pl. LVII) next to the buttresses. Almost the last discovery of the season was a shaft at the south corner of the platform. This is presumably Shaft 1 which is at the southern end of the row of buttresses. The temple area is normally known on the objects as 'JNP zigg' or 'Zigg SW extn' indicating that it was part of the Palace site from the beginning and was recognised as a high terrace or ziggurat like the Anu temple in Uruk. The same general interpretation is implied by 'Gawra Temple' used on **51** (cf. Iraq IX pp. 38, 62).

It is not clear whether 'SW extn' refers to the whole site (the Eye Temple is SW of 'Old Court' = Court 3, presumably one of the first places to be excavated) or to a later expansion of it. The temple is quite small, c. 15 x 25 m, but the plan Iraq IX pl. LVI shows that the whole site extended down the slope to the south and on the western side to give a total size of perhaps 50 x 60 m. A preliminary site plan¹³⁶ which probably represents the outline of the 1937 site, shows a modest bulge at the SW end of the JNP site, perhaps equivalent to the area north of where 'TEMPLE' is marked on the final plan Iraq IX pl. LVI; but these plans only show the limits of excavation and do not include any ancient walls.

The foremen were Nirsis and Yusaf, as we learn from the hedgehog amulet Ashmolean 1939.157: 'JNP zig. SW extn E. of Nirsis Patch', = Iraq IX pl. XIV:7, and the bear amulet BM 126248: 'JNP ziggurat extn - Yusaf's Patch c -1.30 m', = Iraq IX pl. X:6. This explains the area name YP, as in **21**: 'SW extn ziggurat N. of YP', and **414**: 'Zig. extn. YP'.

In the spring of 1938 Mallowan concentrated on the tunnels. 7 shafts and 40 chambers were found¹³⁷. As 8 shafts were found in all (Iraq IX p. 51) this implies that all or nearly all of the tunnels had been explored by this time, according to whether the '7 shafts' include the 1937 shaft or not. Shaft no. 1 leads to 32 chambers (Iraq IX pl. LVIII) of which five, presumably nearest the shaft, are mentioned in the 1937 field report. There were also chambers running from shafts 2, 3 and 4 at least (Iraq IX, sections on pls. LVII - LIX) which cannot be the same as the planned ones attached to shaft 1, as the total area of the plan is not large enough.

The term '1938 shaft' frequently attached to objects therefore does not apply to a particular shaft, but rather to any shaft excavated in 1938, which could include the 1937 shaft as it was discovered right at the end of the 1937 season and most of the tunnels leading from it were explored later. This may even have included some further clearance of the fill in

¹³⁶ Mallowan Photographs II, M717; original now in Cambridge.

¹³⁷ Mallowan Khabur Records, spring 1938 field reports, pp. 161, 171.

this shaft, as we have **424**: 'above 1938 shaft', = Iraq IX pl. 21:3, p. 133 'debris above shaft no. 1'. Two objects confirm that the '1938 shaft' could be elsewhere: **196**: 'above 1938 shaft c. -5.50 m', = Iraq IX pl. 23:14, p. 147 'shaft 2'; and the pin Ashmolean 1939.287: 'F.444 above 1938 shaft', = Iraq IX pl. 31:6, p. 168-9 'above shaft 2'.

The 'royal shaft' was thought to be in room 32 of the Palace, i.e. shaft 3, by Buchanan (1966, nos. 781, 785, 795, p. 144). Perhaps Mallowan originally thought that it was the tomb of the owner of the Palace. The 'court shaft' is mentioned on a bead or knob, Ashmolean 1939.263 = Iraq IX pl. 29:5, p. 161 'shaft in court 3, penetrating to archaic levels'. This shaft is not shown on the plan. A 'plunderer's cut' marked here on the section (Iraq IX pl. LIX) does not reach beneath the Palace.

Much glyptic is said to come from the 1938 shaft, but none of the items catalogued in this study is said to come from the chambers after 1937. The most common term is 'above 1938 shaft', which can only mean disturbed fill, probably of late third millennium date (Iraq IX p. 52). The '1939 shaft' seems to have been excavated in 1938, as the seal **434**: '1939 shaft', was actually registered in the British Museum in 1938.

Mallowan concentrated on the Eye Temple in the short autumn season of 1938. It was only now that he found the cruciform central hall of the building on top of the platform (Mallowan Correspondence, p. 208-9), even though he had found the stone buttresses nearby in 1937.

So far as stratification is concerned, we can only be confident of the Uruk period origin of objects which were actually found in the brickwork. The rest of the Eye Temple material could date to any time down to the Akkadian period; Mallowan believed the shafts were cut at different times in the Agade and Ur III periods (Iraq IX, 52).

Grey brick stratum: **42**, probably **432**

Fill of temple: **51**

1937 Shaft chambers: **6, 25, 35, 37**

1937 shaft: **38, 442**

1938 shaft: **12, 14, 19, 48, 71, 106, 115?, 130, 196, 199, 225, 244, 422, 457, 485, 547**

1939 shaft: **11, 29, 88?, 434**

Royal shaft: **94, 194, 425, 548**

Stone buttresses: **437**

Eye Temple area: **3?, 7, 16, 21, 40, 66, 92?¹³⁸, 338, 414, 431, 433, 436**

Oates excavations, TP site: **87, 439**

1.2.6 FS

1.2.6.1 Mallowan excavations

Mallowan excavated three levels (Iraq IX, p. 75, pl. LXII B). As he says he went down 3 m, it is likely that he reached level 3 or 4 in the Oates sequence, but he probably did not dig deeper. Mallowan says that some broken seal impressions of Akkadian style were found in level 3 (Iraq IX p. 76), but these cannot now be identified.

Top: **125, 307**

Level a(1): **269, 530**

Level a(2): **278?, 318**

1.2.6.2 Oates excavations

FS is a major Oates undertaking with five building levels (Oates and Oates 1994, 171). The top two levels have post-Akkadian "Taya VII" wares. Levels 3-4 have Late Akkadian pottery, and Level 5 is contemporary with the Main Level of the SS site. The CH 6 "Late ED destruction" assemblage has not been reached in FS. Level 4 is an intermediate stratum which produced no floor deposits.

Surface or topsoil or surface pit: **133, 160, 162, 295, 348, 384, 498, 562**

Level 2: good context: **262, 354, 377**; fill: **177, 443**

Level 3: on floor: **213, 276?**; fill: **53, 164, 464, 503**

Under Level 3: **45, 99, 317, 376, 536**

Level 5: on floor: **172, 175, 183, 253, 256, 257, 545**; destruction debris: **170, 189, 221**

Below Level 5: **139, 552**

¹³⁸ Also said to come from WP.

1.2.7 SS (and HF)

1.2.7.1 *Main site*

SS consists of the 'main level' containing the monumental Akkadian building complex, and the 'upper levels' above which also belong to the late third millennium. In some places there is more than one stratum in the upper levels. A few places have been excavated beneath the main level. The "Façade" on the north side of court 8 is as shown in Oates and Oates 1989, 199 fig. 3. SS was first opened by Mallowan as "HF" (Iraq IX p. 79 n. 3) in the area of rooms 1 and 4, and in a second trench further north (82, 127, 420).

Beneath the Main Level: 413; make-up under Main Level floor: 231

Main Level: floor: 80, 143, 165, 201, 207, 211, 233, 240, 243, 255, 261, 274, 426, 558; ritual deposit on floor: 185, 209, 212, 242, 245, 258, 346, 441, 467, 489, 505; "trample layer" on floor: 93, 159, 192, 241, 249, 259, 300, 345; fill just above floor: 102, 107, 156, 302

Deliberate fill of Main Level: 155, 214, 223, 301, 449

Main Level, upper or unspecified fills: 54, 96, 117, 126, 137, 186, 202, 226, 234, 246, 450, 462, 506, 535, 537

Upper levels: pits and fills: 110, 166, 168, 264, 282, 344, 347, 359, 362, 423, 448, 461; ash deposits or tanur: 299, 468; floor: 363

Ash deposits west of room 20: 111, 112, 148, 210, 228

SS surface and topsoil: 64, 81, 463, 494, 502, 538

1.2.7.2 SS 2

This site is located NW of SS: "a massive wall found on the most westward spur of the tell; a number of seal impressions were recovered from associated deposits" (Oates and Oates 1994, 169 fig. 1, 171). The site was reopened as "HP" by R. Matthews (1994, 186-9, figs. 11-13). He found a massive structure and "confidently affirms its lack of domestic appearance". After erosion further rooms were built against this structure and a deposit of ash and sealings was laid down. Some of the seal-impressions belong to the same seals as were found by the Oates expedition (200, 202, 220). The published designs overwhelmingly belong to the Brak Style which is dominant in the Main Level of the SS building. This is confirmed by impressions of 202, which were found both in SS 2 / HP and in a fill deposit in SS. The Oates glyptic from SS 2 does not come from sealed contexts: 109, 169, 173, 190, 200, 203, 215, 220, 251, 475.

1.2.8 Minor Sites

1.2.8.1 *LT*

I have not located site LT, represented only by the ED fragment 100 and by a bulla BM 125874 which is not sealed, but which may have an impression of the mount on the end of a seal.

1.2.8.2 *MD*

A few sealings come from a site MD (17, 27, 32, 34). Buchanan and Moorey 1984, 24: 191 suggest that this is 'probably site CH'. This is somewhat unlikely as all the impressions were made by archaic stamp seals, whereas the surface of CH was Akkadian or post-Akkadian. Prehistoric pottery was however found on the slopes below CH (Iraq IX p. 249, nos. 12, 15).

1.2.8.3 *TC and WP*

These were test strips opened north and east of ER (Iraq IX pl. LVI). With few exceptions, the glyptic is Akkadian. 208 (Iraq IX pl. 24:8, p. 148) was apparently found not in the TC trench, but on the surface by the road nearby. BM 125893: 'WP [4?]' is the only WP impression with any further information; but the reading seems doubtful as Mallowan cannot surely have dug to 4 m there. 92, 319 and 335 may have come from WP, but there is also evidence that they came from elsewhere (see Catalogue entries).

TC: 208, 314

WP: 191, 286, 290, 291, 315, 325, 382, 397, 447, 465

1.2.8.4 *BT and HH*

13: 'BT Hurrian house' and **174** ('BT under Hurrians 1.5 - 2 m' = Ash I no. 788, p. 147 'presumably HH') may imply that BT was part of the HH ('Hurrian Houses') site, as no Mitannian material was found anywhere else. They are stray finds much earlier than the second millennium occupation near the surface in the northern part of the tell. Mallowan also found some Mitannian glyptic there which is not discussed here. **527** may have come from HH – see TD below. **30** is said to come from "Donkey Hill (probably summit E. end)" (Buchanan-Moorey 1984, 24 no. 187).

HH: in Mitannian site: **49**; surface, on slopes below the excavation: **140, 235, 455, 470, 481, 550**

1.2.8.5 *TD*

Several designs come from TD, in each case in the top metre (**4, 22, 63, 70, 342, 509, 523**). **527** is said to come from HH (Iraq IX pl. 21:11, p. 134-5 'F. 726 HH top metre northern half of the mound in later debris'), but the BM register gives 'F. 726 TD top metre' for it. Buchanan (Ash I p. 145) believed TD to be in the north-west sector (Ash I p. 138: 752, p. 152: 810; Ash II p. 23: 182). This could mean the small site marked on the plan Iraq IX pl. LVI west of HH, which might explain the problem of **527**. Another possibility would be a sounding in an outlying tell such as EM (Iraq IX pl. LVI).

TD was also used as a designation for the main site at Chagar Bazar (Iraq IX pl. 83): **365, 428, 76** might come from either Brak or Chagar Bazar.

1.2.8.6 *DH*

This site was opened on a ridge near CH. It had Agade material above the "Late ED destruction level" eroding out of the surface (D. Oates 1985, 164-5). The glyptic comes from the surface: **383, 407, 416**.

1.2.8.7 *ST*

ST was excavated in a modern gully in the hope of finding earlier deposits than are available close to the surface; this hope was disappointed because the gully turned out to be ancient. The top consisted of 2 m of wash deposits above an Akkadian house; below it, traces of the "Late ED destruction" and of the Ninevite V and Uruk periods were discovered. Most of the glyptic came from ancient gully fills, probably laid down in the Akkadian period.

"Late ED": **75**

ED, contaminated: **60, 435**

Levelling for the Akkadian building, contains "Late ED" material: **493, 496**

Akkadian gully fills: **121, 150, 154, 488, 514, 516, 544**

Surface: **58, 480**

1.2.8.8 *TW*

This TW material comes from the top of the TW site and may be contaminated by the Old Babylonian building: **406, 417, 479**. The top of the sequence into which this building was founded is early Ninevite V (Oates and Oates 1993, 168) and this may be the most likely date for this glyptic. Material from the lower sequence in TW (Oates and Oates 1993, 174-178) is not included in this book.

2. Analysis

2.1 Oates Excavations

The purpose of this analysis is to elucidate the dates of the seal styles and of the strata. Individual seals can often give a misleading picture, either because of problems with the classification of style, or because the archaeological context is not secure, but these problems are much reduced when, as here, there is a corpus of material from good contexts on the floors of substantial buildings. The results are not self-standing, but must be checked with reference to the other sources of information on the chronology. Glyptic does not give unquestionable evidence for chronology, but all other sources of information also have problems. Strong glyptic evidence for chronology should be believed unless there are equally strong reasons to think otherwise.

The discussion of provenances above showed that the Mallowan excavations are not easy to understand. It would be justifiable to ignore his stratigraphic data outright. However no archaeological evidence is absolutely secure and information of value can be extracted from his records. But the analysis of Tell Brak should start with an independent study of the Oates excavations which have produced much more glyptic from reliable contexts.

Some stratigraphic and architectural relations are accepted here as prior assumptions. The main sequences in the Oates excavations are provided by the CH and FS sites. CH yielded a good pottery assemblage of the late Early Dynastic or possibly early Akkadian period in Level 6, and this is earlier in ceramic terms than the bottom level 5 in FS. CH 4 can be linked stratigraphically to the Naram-Sin Palace and thus to the Late Akkadian period, but neither this level nor the Palace contained a large archaeological assemblage. The architectural evidence from FS 5, however, both in the plan of the buildings and especially in the evidence for ritual closure, shows that this stratum is contemporary with the Main Level in SS (Oates and Oates 1994, 172-3). Stoneware exists in all levels from CH 6 to CH 3, but not later. The topmost material from FS, CH and SS contains pottery which is to be dated to the very end of the third millennium or into the Isin-Larsa period (Oates and Oates 1994, 167, 173). Other sources of chronological evidence are not *a priori* stronger than glyptic evidence.

In glyptic terms, the distinction between ED and Akkadian style is quite sharp and can usually clearly be recognised. The distinctions between the internal phases of ED and Akkadian seals are much less secure and often cannot be applied to individual seals, but for some seals they are quite reliable: certainly as reliable as the evidence for sub-phasing in other classes of material. The procedure therefore is first to identify the boundary between ED and Akkadian glyptic in the stratigraphic sequence in each site; then to identify any further phases of the Mesopotamian sequence, and then to use the chronology of the strata thus obtained to investigate the dates of seal styles which cannot be dated directly from Mesopotamian parallels¹³⁹.

The Brak Style cannot be dated *a priori*. Dating should thus begin with the seals which definitely belong to the later Early Dynastic style on the one hand (80-180) and to the Akkadian style on the other (268-401). Each of these is a large and coherent collection and there is serious doubt about the style of very few individual designs¹⁴⁰.

In the CH site, no Akkadian seals have been found in context, and no convincing assemblages of glyptic have been found except in Level 6. Of the seven designs from CH 6, four are of ED style. This is not quite enough to prove a negative, so we may say that CH 6 is probably ED but might be later. The glyptic tells us nothing about CH 1-5.

In the FS site, Akkadian glyptic has been found in bad contexts under Level 3 (317, 376), but not in Level 5. Of the ten designs from Level 5, three are ED. As with CH 6, FS 5 probably belongs to the ED period but the numbers are too small to be certain that it does not extend into the Akkadian period. Akkadian glyptic has been found in good contexts in FS 2-3 (354, 377; probably 276).

In the SS site, only one design has been found in a good context in the upper levels. It is Akkadian (363). Akkadian glyptic is common in bad contexts in the upper levels. The floor of the Main Level has an assemblage of 37 designs¹⁴¹, large enough to assert that negative information is significant. Eight of these designs are of ED style, and five are Akkadian (274, 300, 302, 345, 346); most of the remainder are Brak Style. The Main Level thus belongs to the Akkadian period, and FS 5 should be assigned to this period as well, even though it did not include any Akkadian glyptic. The deliberate fill of the SS building contains further impressions of the same seals which are known from the floor, and in addition five new designs, of which one may be Akkadian (301). The four designs known from under the FS 5 and SS Main Level floors do not include an Akkadian design.

¹³⁹ Note that the beginning of the Akkadian period in archaeology is defined by the beginning of the Akkadian seal style, since seals are the only kind of artefact, which are datable to the early Akkadian period, which are found in archaeological contexts. The date when this glyptic change happened in history is unknown.

¹⁴⁰ Such doubts will be expressed below if required.

¹⁴¹ I include four designs from the fill just above the floor. This fill also included many impressions of seals which are known also from the floor deposits, and the four extra designs do not change the overall picture.

The evidence of the glyptic so far indicates that the whole of the SS and FS sites, except for soundings under the lowest floors, belongs to the Akkadian period. CH 6, which is known to be earlier from the pottery, may belong to the Early Dynastic period. To investigate further, we need to consider the sub-phasing of these periods. 138, a design which cannot be earlier than ED III, was found on several docketts from CH 6. This stratum, which is the earliest we have with a significant assemblage, is therefore not earlier than ED III, so there is no question of trying to identify an ED II stratum. Designs stratified below CH 6 might belong to ED II (104) but their style is not clear enough to speculate further. I know of no ED IIIA seal type at Brak which could not have existed also in ED IIIB. ED IIIB in turn is difficult to define and can be reliably recognised at Brak only in the Angular Style and the "Group of Five" scene (168, 174, 264-267)¹⁴². None of these designs comes from an Oates context not already known to be later than the beginning of the Akkadian period.

The question of sub-phasing thus applies only to Akkadian seals. The majority of Akkadian seals cannot be securely dated. Some can, however, be dated with a high degree of conviction, as follows:

Early Dynastic or Early Akkadian: 279, 280, 300-302

Early Akkadian: 268-278, 281-287, 295-299, 338, 346

Late Akkadian: 313-321, 369, 370

Given that most of the Akkadian designs from Brak cannot be assigned to a phase within the Akkadian period, it is striking that nearly all of the Akkadian designs from the SS Main Level and its deliberate fill (274, 300-302, 345, 346) have early stylistic traits. The only exception is 345, which is so similar to 346 that it is probably contemporary.

Late Akkadian designs begin in FS in the material below Level 3 and above Level 5 (317). Unfortunately none has been found in the SS or CH sites. However Akkadian glyptic of types which cannot be sub-dated is common in the upper contexts of FS and SS, and it would be surprising if none of it were Late Akkadian.

These results may be summarised in a table. The tables are compiled from the lists of seals in strata given above, which means that a design is counted once, however many impressions of it there are. The exact meaning of each stratum can be understood by reference to those lists. Surface material is excluded from each site. No distinction between fills and floors is maintained in the upper strata of FS, SS and CH, because to do so would reduce the numbers too far. In CH 6 and FS 5 the floor and destruction materials are counted together. In the SS Main Level the various floor deposits, the fill just above the floor, and the deliberate fill have been counted together, and the unspecified Main Level fills have been omitted. These decisions have been made to obtain the maximum numbers without destroying the discrimination of the stratification¹⁴³.

Table 1: Akkadian glyptic from main Oates sites

	Early Akkadian	Akkadian, undatable	Late Akkadian
CH 6	0	0	0
FS 5	0	0	0
SS Main	5	1	0
SS Upper	2	5	0
FS 1-4	1	3	1
CH 1-5	0	0	0

Given that of the 134 Akkadian designs in the catalogue, 30 (22%) are Early Akkadian and 11 (8%) are late Akkadian, we expect 70% of each row to be undatable. For FS 1-4 and the upper levels in SS this is approximately so. But in the SS Main Level, all but one are demonstrably Early Akkadian or earlier, and the remaining one probably is

¹⁴² Though I suggested that many other designs might also belong to this phase.

¹⁴³ I have looked at the effects of defining the strata differently and have concluded that no significant changes would result. Readers can check this for themselves using the data given above; likewise for any different stylistic classification which they may have. To give a full account of all the possible results in order to justify choosing the one presented here would consume much paper to little purpose. To take one example, the SS Deliberate Fill contains: ED (1), Brak style (2), Early Akk or ED (1) and Various Styles (1), besides impressions of designs also known from the floor deposits. This distribution is exactly what we find on the floor, and therefore I have counted them together.

also. I believe that this is significant evidence that the Main Level is not later than early Akkadian. The picture can be strengthened by considering the Akkadian glyptic in the context of the whole glyptic assemblages of these strata. The seals may be divided readily into five main groups: Archaic (1-79), ED (80-180, 264-7), Brak Style (181-263), Akkadian (268-401) and Various (non-Mesopotamian styles) (402-565). The table may then be repeated (surface material omitted; SS Main including deliberate fill, but unspecified fills in this stratum omitted):

Table 2: Stratified glyptic from main Oates sites

	Archaic	ED	Brak style	Akkadian	Various
CH 6	0	4	1	0	2
FS 5	0	3	6	0	1
SS Main	0	9	20	6	7
SS Upper	0	4	0	7	4
FS 1-4	2	3	2	5	4
CH 1-5	0	2	1	0	1

There is a contrast between FS 5 and SS Main, both dominated by the Brak Style with little or no Akkadian material, and the upper levels in FS and SS, both dominated by Akkadian glyptic with little or no Brak Style. CH 6 is different, being mainly ED; CH 1-5 has too little glyptic for any pattern to show. The six Akkadian seals assigned to the SS Main Level may be too many. Designs 300-302 could all be Early Dynastic; or all or some of them could have been made by the same seal. In either case, the number would fall. Although roughly the same number of Akkadian seals is marked in the SS Main level and in the Upper Levels, proportionately there is a great increase, from 14% in the Main level to 47% above. Having regard to the initial assumptions listed above, that CH 4 = Naram-Sin = Late Akkadian; that FS 5 = SS Main Level; and that SS Main Level is later than CH 6; and given also the results of the glyptic, that the SS Main Level is not later than early Akkadian, and that FS 3-4 is not earlier than late Akkadian: then a scheme with three glyptic periods best fits as the evidence, as follows:

- 1. Late ED: CH 6.
- 2. Early Akkadian: FS 5, SS Main, CH 5.
- 3. Late Akkadian: FS 1-4, SS Upper, CH 1-4.

These are glyptic periods and their precise historical significance is debatable. It is not known when the Akkadian style originated in relation to the reign of Sargon, or how quickly it was disseminated from wherever it was invented. Therefore the reign of Sargon could overlap with CH 6. Similar concerns apply to the relationship between Late Akkadian and the reign of Naram-Sin¹⁴⁴. No Oates glyptic is stylistically later than the time of Naram-Sin, even though glyptic is found in the top levels and on the surface of these sites. These strata are three levels above where Late Akkadian began in FS and CH, and they contain pottery which is later than the Akkadian period. This discrepancy will require further discussion. We can now make a table which contains all the Oates material (130 designs) from CH, FS and SS, placing the material from beneath the lowest floors in SS and FS into the earliest period. The other definitions are as above. The ash deposits west of SS room 20, and the seals from below CH 6, have not been included.

144 Though I take it as proven that they significantly overlapped.

Table 3: Stratified glyptic from main Oates sites

	Archaic	ED	Brak style	Akkadian	Various
CH 6, FS-SS under floor	0	5	2	0	4
FS 5, CH 5, SS Main	0	12	27	6	9
SS Main, unspec. fill	1	4	5	0	5
FS 1-4, CH 1-4, SS Upper	2	9	2	12	8
Topsoil or no context	1	4	0	3	9

We may now mention a few more Oates designs. Site ER produced three designs from the "late ED destruction". Two are ED and the third is of various style (113, 147, 454). The destruction was also observed in ST, and although most of the material comes from insecure contexts, the material is either pre-Akkadian or various (60, 75, 435, 493, 496). The ST surface and gully fills only included archaic, ED and various styles. 263 and 408 were also found in ER: like the glyptic from the upper levels of CH, they are not informative. More interesting are the ash deposits from the west side of SS and from SS 2. All of the material from these deposits (except 475) is ED or belongs to the Brak Style, and this is true also for the material published by R. Matthews 1994, 189 fig. 13. This therefore looks like a dump of material from deposits similar to the material found *in situ* in FS 5 and the SS Main Level, and indeed may represent periodic clearance of the SS building during the time in which it was in use. Put together, this additional material confirms the results obtained in the last table.

These results are not in accordance with the conclusions of the directors of the site. They believe that the FS and SS buildings were constructed by Naram-Sin, and that their contents are therefore Late Akkadian. I quote their most recent statement of the case (Oates and Oates 1994, 168, 171-2):

"A very few fragmentary pieces of evidence now point to a pre-Naram-Sin Akkadian occupation (in addition to Mallowan's Rimush fragment ..., the sign form on one bulla, Iraq 55, Fig. 20), but in general the Akkadian inscriptions on both tablets and bullae are of the ... "classical" period, or possibly later (Foster 1982, n. 13).

"In both areas the ... shrine complex ... represents the earliest phase of construction and may well ante-date the time of Naram-Sin. We believe, however, that the main Akkadian monumental building phase corresponds to the construction of the NSP (CH Level 4) which can be directly attributed to this southern king. This conclusion is based on a variety of arguments, including the occupation of the site by the provincial administration of Naram-Sin, clearly attested in the vast storehouse and administrative centre referred to by Mallowan as the "Palace", and by the presence of Akkadian inscriptions on the bullae recovered from both monumental buildings in SS and FS. This observation is based also on ceramic evidence, building techniques and historical probability. The Akkadian tablets so far recovered are few in number, belong to the "Classical" Sargonic Phase (Foster 1982) and derive either from the fill overlying the monumental buildings or, in Area FS, from the immediately succeeding construction level ... The most distinctive *southern* types of Akkadian pottery and, according to Dr D. Matthews, seals and sealings, derive largely, but not exclusively, from Level 3. Our data are far from comprehensive, however, and the use of seals on the site clearly has a functional as well as a temporal dimension. ... Deliberate, ritual conservation [of the buildings] can only have been the work of the same authority originally responsible for their erection which, on the written evidence, must have been Akkadian."

The argument about building techniques is expanded in Oates and Oates 1989, 196, 206: "although brick sizes are not in themselves a reliable dating criterion, the joints are in this case very distinctive ... the brickwork is virtually identical with that in the foundations of the "Palace" of Naram-Sin"; but the FS and SS buildings do not have bricks stamped with the king's name.

Inscriptions on tablets are reported only from higher strata, but there are inscribed bullae from the Main Level. Published inscribed bullae from Tell Brak are of two kinds: first, dockets such as Oates and Oates 1993, 169 figs. 20, 21 which are found in the SS and FS Main Level, and which are usually sealed with the Brak Style; and second

the type which I am calling the "flat bulla", which is usually sealed with the Akkadian style (e.g. 371: Loretz 1969, no. 84), and which probably belongs to the Late Akkadian period in the phase following the Main Level (cf. p. 181).

Akkadian palaeography is an insecure science. The diagnostic traits are not absolute and "no great importance can be attached to any one of them". The overall appearance of Early Akkadian script is however quite different from that of the "classic" late Akkadian writing (Foster 1982, 3; Westenholz 1975, 3; Charpin 1987, 94-5). So far as I know, no palaeographical criteria exist to distinguish early Akkadian tablets from ED IIIB ones¹⁴⁵; the question is complicated by regional "handwritings"¹⁴⁶. The general appearance of a text cannot readily be assessed from a few lines of writing on a bulla. Nonetheless one of the sealed dockets is reported to have a sign form of "Early Akkadian" type (Oates and Oates 1994, 168; 1993, 164). The Akkadian tablets from Tell Mozan may be a little later than the Late Akkadian tablets from Brak, because of the form of the numerals (Milano 1991, 21, 22; cf. Gelb 1970, xix).

Although functional differentiation is certainly an important factor in determining the distribution of the seal styles (Oates and Oates 1994, 172), and the architecture shows a sharp functional distinction between the monumental Main Level and the domestic upper levels, this will not explain why the few Akkadian designs which have been found in the Main Level should all belong to the early Akkadian style. Another argument might derive from the stratification, in that CH 6, which is earlier than the SS Main Level, "pre-dates the arrival of Naram-Sin by only the short-lived Level 5 rebuilding" (Oates and Oates 1994, 167). D. Oates 1982, 193, suggests that this level "implies the lapse of a generation or so, perhaps as much as fifty years, between the destruction and Naram-Sin". This would be quite long enough for a major phase of construction in the FS and SS sites.

The evidence of the glyptic suggests a clear chronological progression from the ED period in CH 6, to the Early Akkadian period in the Main Level, to the Late Akkadian period in the upper levels. It is never possible to prove that a stratum is not later than the latest material found in it; but in principle we should require strong reasons to do so, and I can see no compelling reasons against the glyptic sequence proposed here.

2.2 Mallowan excavations

A check can be made on this result by looking at the glyptic from the Mallowan excavations. Owing to the difficulties in understanding his results described above, this evidence cannot be given the same weight as the Oates material. Nonetheless his provenances are essentially independent of glyptic style, and therefore they can be used to check the sequence proposed here. In a few cases his provenances may not be independent, when he refers to glyptic from "presargonic fill". It is possible that he defined such fill from the Brak Style, which would have looked to him like an indicator for the Early Dynastic period. But he was excavating in large Akkadian structures and it may be expected that he took them into account in assessing the stratification. Furthermore, if the Brak Style belongs to the Late Akkadian period, then Mallowan should have found it mixed with Akkadian glyptic. He would have presumably have described any context of that kind as Akkadian. If, moreover, Mallowan never did find the Brak Style associated with Akkadian glyptic, then irrespective of the stratification this would support the idea that it does not overlap with most of the Akkadian period.

In ER, Late Akkadian tablets were found in level 2 and this date is also implied by 320. Only one design is stratified below this (248). In CH a Late Akkadian tablet was also found in Level 2 (Iraq IX p. 71); there is no Late Akkadian glyptic. The earliest Akkadian design is from Level B (400) which is probably below Level 2. In FS, Late Akkadian glyptic was found in Level a(2) (318). Tablets are not reported, but Akkadian glyptic, not now identifiable, is reported in the third level (Iraq IX p. 76).

Putting this evidence together, we may propose that in each site the second level was Late Akkadian and the third early Akkadian. This would yield the following picture (omitting incomprehensible, surface and topsoil finds)¹⁴⁷:

145 The language used should not perhaps be considered chronologically significant in Syria (cf. Gelb 1961, 1-2).

146 Biggs 1973; Charpin 1987; Alberti and Pomponio 1986, 13 Table A; Gelb 1961, 5; Westenholz 1975, 3-4. I am indebted to J. Black for some of these references. Cf. p. 12.

147 The following tables are compiled from the lists of designs in provenances given above. Since the main problem is shortage of evidence, more data has been preferred to less, even though some provenances are more doubtful than others. The reader can easily compile results based on different criteria, but I would not then expect to see a pattern.

Table 4: ED, Brak and Akkadian glyptic from FS, CH and ER

FS	ED	Brak	Early Akk	Akk, unspec.	Late Akk
Level 1			1		
Level 2			1		1

CH/FNP	ED	Brak	Early Akk	Akk, unspec.	Late Akk
Level 1	2	4		3	
Level 2		1	1		
Level 3		2		1	

ER	ED	Brak	Early Akk	Akk, unspec.	Late Akk
Level 1	1	1		4	1
Level 2	6	4	3	6	1
Level 3		1			

Combining these tables gives (45 designs):

Table 5: ED, Brak and Akkadian glyptic from small Mallowan sites

FS, CH, ER	ED	Brak	Early Akk	Akk, unspec.	Late Akk
Level 1	3	5	1	7	1
Level 2	6	5	5	6	2
Level 3		3		1	

The numbers are not large enough for a conclusive result, but the last table is consistent with an Early Akkadian level containing Brak Style with a little Akkadian, underneath the earliest Late Akkadian level. No difference is discernible between Level 2 and Level 1, except perhaps a reduction in Early Akkadian.

A weakness in this argument is that Level 3 should be Late Akkadian, from the depths which were reached in the Oates excavations. It is possible that Mallowan disregarded some of the strata which have been recognised more recently¹⁴⁸; or that there was a shorter sequence in the places where he excavated. The Oates excavation in ER, for example, found the "CH 6" destruction in Level 4 (D. Oates 1982, 194). This would exactly fit the sequence proposed here.

More material is available from the Palace of Naram-Sin. The important distinction is between floor deposits (including ash deposits in Court 2, 3 and Room 13), and material below the floor or below the footings. I have counted Court 2 material at 2m as floor material and below 2m as below the floor, because this floor is at known height; other depths below 2m are counted separately. Surface deposits are omitted, and so are all seals not of Akkadian, ED or Brak Style.

148 Iraq IX, 75 says that FS Level 1 was 70 cm below the surface. Most of the Oates Level 1 consisted of foundations in trenches, with few if any floor deposits, right on the surface.

Table 6: ED, Brak and Akkadian glyptic from the Palace

JNP	ED	Brak	Early Akk	Akk, unspec.	Late Akk
Below 2m		1	1	2	1
below floor	2	4	2	3	
Floor	2	2	2	5	1
Top level	2		1	4	1

Only one late design comes from a deep context, namely **401** from 2-3 m, probably in Court 4. This design is the only one from Brak which identifiably dates later than Naram-Sin because of its style. This stylistic phasing is unlikely to be wrong because the glyptic of Naram-Sin's time is well known. Therefore this impression should not be earlier than the palace floor. Either there is an error in the provenance, or the floor in Court 4 was below the findspot. Because of this problem, objects with provenances which are given as a depth of more than 2m are omitted from the calculations, except in Court 2 where we know the height of the floor. The other rows give results in conformity with what we have seen before. Late Akkadian begins on the floor. Early Akkadian exists below the floor, and is a higher proportion of total Akkadian glyptic there (40%) than on the floor (25%). Early Akkadian is rare in the upper fills. Brak Style is a much higher proportion of the total¹⁴⁹ under the floor (36%) than on the floor (17%), and is absent from the upper fills. The numbers are of course small, and one could not feel confidence in them if this were all we had. But when the same picture was obtained from the other Mallowan sites, and also from the Oates sites, the chance of error is reduced. We can compile a combined table for all the Mallowan sites by making an equivalence between the Palace floor and Level 2. This equivalence is not determined by the glyptic, but follows from the presence of Late Akkadian tablets in all these contexts (except FS). Since these tablets are not sealed, this is an independent criterion. The following table of 76 designs was compiled by adding Tables 5 and 6, with the omission of the first row in Table 6.

Table 7: ED, Brak and Akkadian glyptic from stratified Mallowan sites

	ED	Brak	Early Akk	Akk, unspec.	Late Akk
Lev. 3 / below floor	2	7	2	4	
Lev. 2 / Floor	8	7	7	11	3
Lev. 1 / Top level	5	5	2	11	2

A percentage version can be compiled by expressing each figure as a percentage of the row total¹⁵⁰:

149 I.e. the total given in the table: excluding designs not of ED, Brak or Akkadian style.
150 More elaborate statistics, such as comparison with expected frequencies, are not justified by these small numbers.

Table 8: Mallowan style proportions

% of row total	ED	Brak	Early Akk	Akk, unspec.	Late Akk
Lev. 3 / below floor	13	47	13	27	
Lev. 2 / Floor	22	19	19	31	8
Lev. 1 / Top level	20	20	8	44	8

In viewing this table, it is important to remember that three times as many Early Akkadian designs have been recognised in the catalogue as Late Akkadian ones. This probably does not represent the real ratio between them, as most Akkadian designs cannot be assigned to a sub-phase, and also because most Akkadian glyptic comes from strata which we know belong to the Late Akkadian period on the evidence of the tablets. We know that Brak was an important centre of southern power in the Late Akkadian period; and we know also that the Akkadian style was not the most important style at Brak in the Oates Main Level period which I am assigning to the Early Akkadian period. Therefore if anything, we should have expected more Late Akkadian than early Akkadian glyptic at Brak.

We can now make a table of all the glyptic from the Mallowan excavations in ER, CH, FS and JNP (111 designs). For conformity, surface materials are omitted and so are objects from below 2m in the Palace, except in Court 2. Otherwise, objects at 2m are counted as Level 2 (they might be stratified earlier, but are not likely to be above a Level 1 floor at this depth), while objects with a depth of less than 2m are counted as level 1.

Table 9: Total glyptic from main Mallowan strata

	Archaic	ED	Brak	Akk	Various
Lev. 3 / below floor	6	2	7	6	6
Lev. 2 / Floor	1	8	7	21	14
Lev. 1 / Top level	0	5	5	15	8

The Mallowan evidence does not give as clear a picture as does the Oates evidence. Nonetheless it gives the same result: a phase (2) which cannot be earlier than the Late Akkadian period, dominated by Akkadian glyptic including some Late Akkadian glyptic, stratified above a phase (3) which cannot be earlier than the Akkadian period, dominated by the Brak Style with some Akkadian but no late Akkadian glyptic. This vindicates the value of taking Mallowan's provenances seriously¹⁵¹. The fact that the scheme works for Mallowan's sites disproves the possibility that the FS and SS glyptic was distributed according to function, not time. This was a reasonable hypothesis because of the sharp difference between monumental buildings in the Main Level and houses above it on both sites. The Palace of Naram-Sin, however, is the upper level, with material of unknown context below; in the Mallowan ER and CH sites, also, public buildings are more likely in Level 2 than below as is shown by the substantial, if not palatial architecture. The conclusion which was obtained above independently from the Oates material is thus supported by the Mallowan material, which yields the following correspondences:

Oates Upper Levels (FS 1-4): Mainly Akkadian glyptic including late Akkadian glyptic; little Brak Style; Late Akkadian tablets:

= Mallowan Levels 1-2 (Palace floor): Mainly Akkadian glyptic with some Late Akkadian glyptic; some Brak Style; Late Akkadian tablets.

Oates Main Level (FS 5): Mainly Brak Style glyptic with some Akkadian but no Late Akkadian glyptic; inscriptions only on bullae:

= Mallowan Level 3 (under Palace floor): Mainly Brak Style glyptic with Akkadian but not Late Akkadian glyptic; no inscriptions.

¹⁵¹ Cf. Zettler 1978, 348. I know of no Mallowan seal provenances in this collection which are absolutely impossible, except 518, a cylinder seal of the Halaf period, and 577, an Achaemenid impression from Akkadian debris.

We can now compile a joint Table for the Mallowan and Oates material together. This is compiled from Tables 1, 3 and 7, with the inclusion of the unspecified fills of the Oates Main Level with the rest of the Main Level material (because no such discrimination is possible with Mallowan's data). Surface material is omitted.

Table 10: Stratified ED, Brak and Akkadian glyptic from main sites

	ED	Brak style	Early Akk	Akk, unspec.	Late Akk
CH 6 etc.	5	2	0	0	0
Main Level / Mallowan 3	18	39	7	5	0
Upper levels / Mallowan 1-2	22	14	12	30	6

The twelve Akkadian designs which come from "Early Akkadian" contexts are: **274, 279, 287, 289, 300-302, 305, 345, 346, 374, 400**. Seven of them are identifiably Early Akkadian in style, and none of them show any Late Akkadian traits except for the bare lion's shoulder in **305** which, however, also has "early" forms of the lion's paw and bullman's arms¹⁵². The total glyptic from the main Oates and Mallowan strata (224 designs) may be obtained by combining Tables 3 and 9:

Table 11: Total glyptic from main Oates and Mallowan strata

	Archaic	ED	Brak style	Akk	Various
CH 6 etc.	0	5	2	0	4
Main Level / Mallowan 3	7	18	39	12	20
Upper levels / Mallowan 1-2	3	22	14	48	30

This evidence can be presented proportionately, as before, by expressing each figure as a percentage of the row total:

Table 12: Total style proportions from main Oates and Mallowan strata

% of row total	Archaic	ED	Brak style	Akk	Various
CH 6 etc.	0	45	18	0	36
Main Level / Mallowan 3	7	19	41	13	21
Upper levels / Mallowan 1-2	3	19	12	41	26

¹⁵² Note material with a depth below 2m in the Palace was excluded from the table because of the late date of the style of **401**. **284** and **293** are the only objects given a deeper provenance than **401**; **284** is Early Akkadian and **293** is undatable. This depth of 3m is very likely below the Palace floor.

This shows the Brak Style displacing ED glyptic and in turn being displaced by the Akkadian style. Archaic seals are always a small proportion, to be counted as the result of redeposition. The substantial "tail" of ED, Brak Style and Early Akkadian designs in the higher strata should not be regarded as evidence for continued production, but rather for redeposition combined with the use of old seals for one or two generations after they were made.

We cannot expect to obtain much better chronological evidence from glyptic. Taking into account the problems of the other sites, I believe that the evidence that the Main Level belongs to the Early Akkadian period is the most compelling link between a date and an assemblage which presently exists in the archaeology of Early Bronze Age Syria.

3. Consequences

Having established this result, it is now possible to use it to investigate the dates of the styles which could not be dated *a priori*. Most important is the Brak Style, which is now established in the Early Akkadian period, originating earlier in CH 6 but not at that time dominant. I think it likely that this style was not made or used in the Late Akkadian period, although it is sometimes found on Mallowan Level 2 floors (e.g. 232, 245). It is strikingly rare in the Oates upper levels, being confined to 213 and 262 from FS. Neither of these two designs is typical of the style, and I have suggested that 262 might represent a later derivative from it (see p. 137). Mallowan's examples are more numerous, but he did not excavate with so much precision, and in one case (245) an impression from the Palace floor was actually made by the same seal as many impressions from the SS Main Level floor¹⁵³.

3.1 Eye Temple

The Eye Temple was rebuilt in the Early Dynastic period and then contaminated by tunnels which were probably dug in the later third millennium. The list of provenances shows that glyptic of styles belonging to the ED III period or later was found only in the "1938 shafts", in the "Royal shaft" and in the general area of the temple. All of this material is Brak Style except 338. A significant quantity of Early Dynastic glyptic (66, 71, 87, 88, 92?, 94, 106, 115?, 130) was found in the shafts, in the general area, and in the TP site. None of this glyptic is certainly as late as ED III in style, and only 71 and perhaps 66 are ED I. It is striking how little of it has the common crossed animals contest, favouring rather the "Syrian Ritual" and unusual kinds of banquet scene. When we recall that most of the other designs of these kinds come from nearby in the Palace area (85, 86, 89, 91) it becomes attractive to speculate that the "Syrian Ritual" took place in the Eye Temple and that these are the seals of the temple officials or devotees.

No fired steatite glyptic has been found in the Eye Temple, but it and the Palace area produced all of the archaic cylinders (40-51) except 45 and 49. Some this material comes from the brickwork, the temple fill (51), and the shaft chambers, which did not yield any glyptic which must be later than the Late Uruk period. 42 and probably 432 are especially interesting here, as they were found within the grey brick stratum which is significantly earlier than the top level of the temple which Mallowan excavated. The date of this stratum is uncertain, but it is said to have produced most of the small finds from the temple (Iraq IX, 35, 56), including almost all of the "eye idols". "Eye idols" have now been found in the Middle Uruk strata TW 14 and 16 (Oates and Oates 1993, 176), so there is a possibility that 42 and 432 could be among the earliest cylinders ever found in Syria. For 42, since it is unique, this would pose no problem, but it is earlier than I would have expected for 432, which resembles the geometric seals of the late Uruk period.

3.2 Geometric seals

405-448 are geometric seals of types which would be credible in Late Uruk contexts, though they could also occur later. Their provenances are as follows; "early" and "late" Akkadian strata are as above.

Uruk stratum: 432

Eye Temple area and shafts: 414, 422, 425, 431, 433, 434, 436, 437, 439, 442

Perhaps early Ninevite V?: 406, 417

Perhaps Ninevite V: 429

Khabur region, probably stoneware period: 405, 410, 419?, 438?

ED, contaminated: 435

ED, earlier than Early Akkadian stratum: 413

¹⁵³ Evidence that could, of course, be used to support the contemporaneity of these floors.

Early Akkadian: 412, 424, 427
 Early Akkadian, on floor: 426, 441
 Late Akkadian: 423, 443, 448
 Surface or no context, Akkadian area: 407-409, 415, 416, 420, 430, 440, 447
 Other/None: 411, 418, 421, 428, 444-6

The Late Akkadian cases may be rejected: they are few and could be redeposited. However the chevron designs 405-411 except 406 may date to the ED III - early Akkadian period, because of the two seals from Tell Abu Hujeira (405, 410) and the late date of chevron designs with horizontal lines at Abu Salabikh (Martin and Matthews 1993, 34: cf. 407-409). No clear picture emerges for the diamond patterns 417-425 as they are distributed throughout the list above. The later examples could either be *in situ* or redeposited. 426 and 427 may however be exceptions, as both have early Akkadian contexts. They are similar to each other, and differ from the normal diamond pattern designs in being large, with squat proportions, and having a large number of carelessly applied lines which do not make clear impressions. Given the good context of 426, these seals could belong to the stoneware period. The lozenge patterns 429-437 on the other hand have consistently early contexts and I see no reason for any of them to date later than the early Ninevite V period. The lattice patterns 438-448 do exist in the Eye Temple area (439, 442) but many of them have much later contexts and 441 comes from the ritual deposit in the SS building. I think it likely, therefore, that this type was still being made as late as the stoneware period. The dotted lattices (451-455) are known to belong to the end of the ED period, and this is confirmed by 454.

3.3 EB styles

The Chuera Style is represented at Brak by 496, 498-502, 514, 515, 517. These pieces have few good contexts, but 517 comes from CH 6 and 496 comes from Akkadian levelling fill which contained CH 6 pottery. This is as far consistent with the ED IIB date proposed above for the Chuera Style (see p. 117) as is possible at Brak, where there are no stratified assemblages of that time. The "H-animals" (471-474) look, stylistically, like a derivative of the Chuera Style. The only one with a useful context is 471, which may belong to the early Akkadian period (CH 5). In addition, 472 is rolled on a chariot model, a practice attested in ED IIIB (see p. 71 n. 66, 108). This late ED / early Akkadian date may be supported by 475¹⁵⁴ and 476, which look like a less rigid development of the type. 475 comes from the early Akkadian dump SS 2, while many impressions of 476 were found in the Late Akkadian "Sargon" level in ER. 477 may also have belonged to this time. 503-507 may be more distant relatives of the Chuera Style, making a transition toward the "EB Banquet" scene (see p. 121). They have contexts in the Akkadian period. The "EB Banquet" itself (508-513) is later, being nowhere stratified earlier than the Late Akkadian period. The many impressions of 508 in the Late Akkadian "Contract Room" in ER are especially persuasive. These provenances thus give stratigraphic support to the idea that there was a development from the Chuera Style which ran parallel to the more important Brak Style in ED III, culminating at the end of our period in the "EB banquet" which was the principal ancestor of the glyptic of the Middle Bronze Age.

The Chuera Style was often used on sherds in eastern Syria (500, 502). The tête-bêche seals (483-487) and the Syrian Animals Style (558-560) are closely related to the sherd impressions of EB III western Syria. The earliest is 484 from CH 6; next comes 558 from the SS Main Level floor and 559 from a depth of 3m in the Naram-Sin Palace, likely to be below the floor; 486 is from an ash layer in the Palace which may represent the Late Akkadian period. This evidence supports a survival of the type in EB IV, like the two designs from Tell Selenkahiya, FI 133 and Van Loon 1973, p. 148, both of which however are connected also to the "EB banquet" which does not occur in this series from Brak. The large coarse seals 525-533, often in artificial materials, with tree or box patterns, also appear to be relatively late in date, starting with the ED period at Abu Hujeira (525)¹⁵⁵ and running as late as the final third millennium occupation (530). The box patterns can be associated with the "EB Banquet" (see p. 122).

The Provincial Elamite, second millennium and first millennium designs are dated on evidence from elsewhere and are discussed above (see pp. 146-147, 149).

154 If this design is correctly interpreted; it could be geometric. Beatrice Teissier tells me that there is a sealing from Tell Beidar with two impressions, one of which is in the Brak Style, similar to 245, while the other shows "H-animals".

155 NB the similar seal from Tell Abu Hujeira, found in a level with mixed Ninevite V and stoneware: Martin and Wartke 1993-4, 214; R.-B. Wartke, pers. comm.

C THE FUNCTIONS OF THE SEALS

The catalogue in this book contains 721 items covering 577 individual seal designs. The number of items is approximate because it depends on the expedition object register, which sometimes includes more than one object under the same number¹⁵⁶: but something like 800 objects are represented. These are original seals, for which each object represents one design, and seal-impressions, where the same design may occur on many objects. The relationship between object type and seal style is not random and provides us with our main evidence on the function of the different styles. To investigate the contexts we need to have a classification of styles which will group the seals without losing the patterns in excessive detail. I assign the designs to the following groups¹⁵⁷: stamps (1-39); archaic (i.e. Uruk and "Jemdet Nasr" figurative cylinders: 40-51); fired steatite (52-64); ED I (65-79); other ED seals (80-180, 264-7); Brak Style (181-263); Akkadian (268-401); Geometric (402-469); EB (i.e. figurative, not belonging to the other groups: 470-560); and various (561-577), which are mainly of a later period but include special groups such as the Provincial Elamite seals. In the following table, each design is counted once, irrespective of how many impressions of it are preserved.

	Original seal	Impression	Total
Stamps	3	36	39
Archaic	5	7	12
Fired steatite	5	8	13
ED I	1	14	15
ED	9	96	105
Brak Style	2	81	83
Akkadian	18	116	134
Geometric	37	31	68
EB figurative	23	68	91
Other	7	10	17

1. Original seals

There are 110 original seals in this catalogue. They include examples of every important style which occurs among the impressions, but ED I and Brak Style seals are very rare (65, 232)¹⁵⁸. In the case of ED I, this may be because they were not made in Syria, so that the evidence which we have derives from seal-impressions imported on trade goods (see below). The one actual seal which is incorporated in the catalogue, 65, is in the Brocade Style, for which we do not have any impressions. It was not excavated, but purchased by Mallowan during the Khabur expedition, and it is probable that it was imported into that region from the south in modern times.

The Brak Style, in contrast, was a local style, and it is extremely surprising that it is almost always found only in impressions. The style had a special administrative function, and it is possible that some particular mode of disposal was favoured, such as in graves, which, as mentioned above, have not been found. On the other hand there were extensive destructions at Brak during the period in which this style was in use. Therefore some seals should have been lost. A very speculative explanation is that the style was only used in a particular administrative context which required the seals to be kept in particular rooms. In CH 6, where we have a destruction, only a limited exposure is

156 Categorising decisions, such as how to register fragments of the same broken object, cannot be avoided.

157 Problems with the style of individual cases are discussed in the Commentary.

158 The second Brak style original seal, 213, is a special case, discussed below.

available and the rooms in question may not have been found. In FS 5 and the SS complex, a much large area was exposed, but the rooms were cleared and only bullae and special deposits, which did not include original Brak Style seals, were left. 232 was found in the foundations of the Naram-Sin Palace, which may there have penetrated into the right kind of room.

Actual seals occur occasionally in all of the other styles, and especially commonly among the geometric designs, where they comprise more than half of the total. There are also many actual archaic stamp seals from Brak, but they are very badly represented in this catalogue where the stamp designs are mostly from ancient impressions (cf. p. 129). In consequence, geometric designs on stamps are heavily under-represented. This is not likely to be an accident¹⁵⁹.

2. Materials

The materials of seals cannot be recognised reliably by an amateur, especially in the relatively soft materials which were mainly used in the third millennium. Through the kindness of Margaret Sax of the British Museum, I have been able to include her scientific assessments of the BM seals from Tell Brak. This gives a solid basis to which the other material descriptions can be related¹⁶⁰.

The principal materials are calcites of various kinds, which are normally white, and hydroxy magnesium silicates, which are usually coloured green-black. It may be questioned how far the ancient people were aware of the differences between one material and another. Although the seal-cutters would have noticed variations while working the stones, they may have had limited opportunities to use such observations in naming minerals because each engraver would probably not have had much raw material in his possession at any one time. We do not know, moreover, which of the qualities of a stone were most important to them. The engravers might have been interested in qualities such as hardness, brittleness and ability to take a polish; the customers (including the scribes who wrote texts on such matters) may have had more interest in colour, translucency, or other qualities to which mystical significance was attached. Therefore a single term might be adequate for their purposes, yet cover a number of distinct materials. For this reason, and because I cannot give scientific determinations for the seals which are now in Syria, I have used broad categories here in analysing the relationship between material and style.

Dark coloured:

Chlorite, steatite and serpentine (all coloured from black/brown/grey to green): **59, 65, 85, 232, 270, 275, 276, 377, 421, 438, 518, 523, 529**

Black stone, probably mainly as above: **57, 358, 365, 366, 381, 507, 512, 560, 576**

Bitumen: **274?**

Opaque coloured stones (including dark coloured limestone):

Green **575**; Grey **517**; Mottled **163**; Lapis lazuli **458**; Red **420, 539**; Brown **568**

Artificial materials:

Faience (blue, black or colour lost): **409¹⁶¹, 431, 432, 434, 437, 561, 562**

Ceramic and clay: **2, 114, 213, 335, 412, 447, 450, 460, 488, 527, 531, 532, 533, 549, 567**

Fired steatite: **52, 56**

White composition¹⁶²: **413, 489, 506, 525, 528**

White or light coloured:

Various soft white materials: **35, 279, 334, 403, 404**

Calcite, limestone (brown, grey, white): **41, 43, 50, 128, 266, 299, 355, 380, 405, 423, 424, 427, 428, 439, 440, 444, 445, 530, 558**

Marble (grey, pink, white): **36, 92, 134, 337, 402, 411, 422?, 426, 442, 452, 574?**

Translucent green: **42, 429, 441**; colourless **51**

¹⁵⁹ Cf. at Gawra, Rothman 1994, 112, 116; Weingarten in Ferioli et al. 1994, 205.

¹⁶⁰ Appendix A. Margaret Sax is not responsible for any statements made here which are not specifically attributed to her.

¹⁶¹ Dr Moorey tells me that black glaze is not reliably known before the ED III period.

¹⁶² Or some mineral which looks like a fine white composition?

Organic:

Bone or ivory: **54?, 419, 433, 490, 504, 505**Shell: **93, 130, 269, 285**Wood: **449**Unknown: **410**

It is interesting that all of the geometric faience seals, except **409**, show the lozenge pattern. I have suggested that this type may have been EB I or earlier (see p. 172). The other style which used faience was Provincial Elamite (**561, 562**). In general, artificial and organic materials (except shell) are never used for the styles in the southern Mesopotamian figurative tradition. **213**, perhaps in the Brak or ED style, is an exception, but it can surely not have been made to be used: it cannot make a proper impression. It is an example of a rare practice of making a clay seal by rolling a clay cylinder around another seal. This is known at Susa and Ur (Collon 1987, 119, no. 502) and in the EB I of Hassek Höyük (Behm-Blancke 1981, Taf. 11: 1, 4).

The table of materials and styles below is compiled from this list. "Other" styles means stamps, ED I, Brak Style and the styles **561-577**.

	Archaic	Fired steatite	ED	Akk	Geom.	EB	Other
Faience					5		2
Fired steatite		2					
White, various				2	3	4	1
Calcite / marble	3		4	4	15	2	2
Translucent	2				2		
Bone, ivory		1			2	3	
Shell			2	2			
Other				1	2		
Black-green stones		2	1	8	2	6	3
Coloured stone			1		2	2	2
Ceramic			1	1	4	6	3

The Table shows how completely the fired steatite style rejected the limited range of materials favoured by the archaic styles which came before it. The other main styles are re-tabulated below according to colour: "light" = the rows formerly marked white, calcite, bone, shell; "coloured" = coloured, translucent, faience¹⁶³; "dark" = black-green stones. The other rows are omitted.

	ED	Akk	Geom.	EB
Light	6	8	20	9
Coloured	1		9	2
Dark	1	8	2	6

¹⁶³ These objects were probably more colourful in antiquity than they are today.

This shows that ED liked light stones; Akkadian and EB both liked both light and dark stones; while geometric seals are usually light or coloured. It is interesting that most coloured stones are geometric: the type which is least represented in impressions. The implication is that the purpose of a geometric seal was the seal itself, not its use for sealing: therefore the character of the stone was more important and coloured materials could be used. The distribution of bone and ivory seals in geometric and EB seals suggests that these materials may also have been thought of as "special" rather than, as counted here, "white". The shell seals on the other hand are all ED and Akkadian, perhaps because the thick shell cores had to come from the south.

These results can be contrasted with the materials of seals mostly from southern sources studied by Sax et al. (1993). Taking the period from Akkadian to Ur III, they showed that serpentinite was largely replaced by chlorite, with a strange bulge in the occurrence of lapis lazuli in the low-quality Post-Akkadian seals. In Sax' study of the British Museum seals in this catalogue, chlorite was recognised twice, in BM 126089 (BM I pl. 4j), an archaic seal¹⁶⁴, and 529, which is Syrian EB or possibly Late Cypriote. The two serpentinite seals 65 and 232 are ED I and Brak Style respectively. This evidence is quite different from the southern situation. Lapis lazuli is almost absent in the Brak cylinders (458: provenance unknown) though it does occur in Ur III style cylinders from other western sites such as Kültepe. The mass of lapis in ED III Ur makes one suspect much re-use of the material there in the impoverished Post-Akkadian period, which would have biased the BM sample (Sax et al. 1993, 88). Syria does show a marked change in seal distribution in the Ur III period, with Ur III style seals confined to a small number of major trading towns (see p. 126). Brak was apparently not one of these towns and so we cannot use our evidence to test how far the patterns identified by Sax extended to Syria.

3. Seal-impressions

The remaining 467 designs are known from seal-impressions¹⁶⁵. These are impressed on a range of bulla types, some examples of which are illustrated on Pl. III-VII¹⁶⁶. This poses a statistical problem in analysing the distribution of design number against bulla type, because it is satisfactory neither to count them by design number, since the same design can be impressed on more than one type of bulla, nor by object number, both because the number of objects is debatable, as discussed above, and because it would distort the overall picture to count many impressions of the same seal on the same bulla type (e.g. 242, 245). As a compromise, I have counted each combination of bulla type and design number once. Thus in the table below the figure refers to the number of different designs which appear on each bulla type. Thus 17 Brak Style dockets means that there are 17 different Brak Style designs which are attested on dockets; each of these designs could occur on more than one docket. This gives 505 items, i.e. an extra 38, or 8%. This seems small enough to me not to distort the overall picture excessively, while allowing the full variation present to be included. In fact only one design must occur on more than two different kinds of bulla, namely 346 whose impressions were attached to cloth, matting and a peg¹⁶⁷.

164 Excluded from the catalogue because it is not from Brak or connected with Mallowan.

165 As usual in Near Eastern glyptic, no cases are known where both the seal and its ancient impressions have survived.

166 These drawings are reproduced at a scale of 70%. Simple regular hatching is used to indicate sections; cross-hatching denotes broken surfaces. Solid outlines are the original edges of the objects; dashed outlines are broken edges. The drawings are simplified to make the shapes easier to understand: in seal-impressions, the section is usually the most informative representation.

167 It is possible that other designs were attached to more types of bulla, as most of them are attested on bullae whose type is now indeterminable.

	Stamp	Arch.	F. st.	ED I	ED	Brak	Akk.	Geom.	EB	Var.
Disk	14				1	1	1	1	1	
Basket disk	6	1	1	4	1			2		2
Jar	5	1			6	1	12	1	3	1
Peg	1		2	3	22	24	13	7	12	1
Sherd			1		2			1	9	
Test strip				1	15	14	8	1	7	
Cloth				1	2	2	6	2	1	
Knob					1	2				
Docket					12	17			1	
Peg/Jar					4	4	3		3	
"Package"					4	3	10		3	1
Flat bulla					2		11			
Basket					1	1	5	2	2	
Block		1					1		1	
Various		2		1	1	2	2	1		2
?	10	2	5	5	25	26	56	13	27	6

The seal-impressions may be listed under 16 headings. There are 13 cases of impressions on *sherds or other terra-cotta objects*. 58 is in fired steatite style, as also perhaps 468; 126 and 147 are Early Dynastic contest scenes. Of the others, most show animals (478, 480-482 and perhaps 551); 472 (on a chariot model), 500 (Tell Mozan) and 502 show a man and animals, all with spiky objects as in the Chuera Style; 514 shows a banquet, probably also in the Chuera Style. So the sherd impressions belong mainly to two periods, neither of which is directly attested in the stratified material at Brak: the fired steatite period in ED I, where impressing on sherds is related to contemporary material in the Hamrin district; and ED IIB, when the Chuera Style is attested at Chuera and Leilan, with clear links to the EB III sherd impressions of Ebla and Hama (see p. 114). The two ED style sherd impressions should be regarded as accidents¹⁶⁸.

Apart from these, the seal-impressions are all on unbaked clay bullae, of which there are several types. A statistical approach is difficult here, not just for the reasons outlined above, but also because most bullae are broken and fragmentary and the reconstruction of their original function is doubtful. The Brak impressions do not seem to have reverses as clear as have been reported from other sites (e.g. R. Matthews 1991). I have preferred on the whole to believe less rather than more¹⁶⁹ and have assigned 175 items, or about a third of the total, to an *unknown* category. Most of these are fragmentary and many of them have traces of string marks or grooves on the backs. A further 11 items are counted as *various*, which means that they probably do belong to identifiable types, but so few examples are known that no functional inferences can be made. They may be accidental forms (e.g. the unbaked sealed cylinder 47 which could not have been used as a cylinder seal, unlike the baked version, 213) or solutions to particular sealing problems which did not recur, like the tablet 343. Interesting types here are the tags 414 and 577 (*fig. a*), which despite their similarity must date 2000 years apart, 246, apparently a peg sealing later made into a "token", and the bag sealings(?) 45, 99, 262 and 571 which show absolutely no stylistic uniformity.

¹⁶⁸ Seal impressions occasionally occur on pot sherds at all periods. It is only when significant numbers of seals in the same style are impressed on a consistent type of pot that we can infer that the rolling was done as part of a system. Isolated examples should probably be understood as casual decoration (Collon 1987, 113, no. 499).

¹⁶⁹ "I would beg people to use great caution when interpreting the impressions on the backs of the sealings": Fiandra in Ferioli et al. 1994, 166.

The two most widely distributed bulla types are the *peg sealing* and the *jar sealing*. For many years these were confused in the literature, and the problems of interpretation are still not entirely solved. The issues have been recently discussed by R. Matthews (1991, fig. 2) where he illustrates some types. The peg sealing is a clay bulla applied to a peg which is tied round with string; the peg and the string usually leave clear impressions in the clay. The base, or end, of the sealing may be a surface from which the peg projects, and R. Matthews suggests that this can often be identified as wall plaster, so that the peg sealing is a *door sealing*, as shown in his fig. 1. I do not find this entirely convincing. He reports chaff marks, or wood impressions (Beyer 1985, 375; Zettler 1987, 230), or a smooth surface pitted with minute holes on the bases of door sealings, all of which are explained as different kinds of door jamb surface; and also small peg sealings without bases with sacking or other container impressions, which he does not interpret as door sealings (R. Matthews 1989, 43-6). Clearly therefore pegs were attached to a number of objects, some of which were no doubt doors, but almost certainly not all. The ends of the Brak peg sealings seem to be less clearly preserved and are often missing. Of those which are preserved, some are flat and may have been attached to a wall or a box; others are rounded which may mean only that the peg was so long that the sealing did not reach as far as the base surface. **79** (fig. b) is an interesting and unusual case where the peg seems to have projected from a package or container made of split reed or some such material. Boxes which could have been fastened with a peg sealing are known from Egypt¹⁷⁰.

I do not know of any sure way of identifying a door sealing as such, as I would not think that it is necessary that chaff marks (which occur on several types of bulla) or any other impression on the base must represent a door jamb. The Near East is a dry dusty environment with many small things blowing in the wind and chaff could easily get attached to the damp surface of a clay sealing by accident, or could have been used to stop the clay from sticking to the wrong things¹⁷¹. I therefore describe all of these objects as "peg sealings", certainly designed to seal containers, but not necessarily closures for rooms rather than boxes, bales¹⁷² or other transportable containers¹⁷³. Perhaps only when we can actually see the impression of the door plaque itself can we be sure that we have a door sealing (Zettler 1987, 214, 219, 220, fig. 10). Therefore an impression on a peg sealing was not necessarily made by a seal which was used at the same site where the sealing was excavated, so this bulla type cannot reliably be used to distinguish between native and imported glyptic¹⁷⁴.

The peg itself is usually a cylinder (fig. c), as shown by R. Matthews 1991, fig. 2: Type 2, with a diameter between 9 and 50 mm. I have tried to give estimates for the diameters of as many pegs as possible in the catalogue, but I can see no regular pattern in these sizes relative to any other factor. Small pegs, less than 20 mm across, include (not counting "angular" pegs): **123, 179, 196, 245, 271, 443?, 448, 511, 526, 569**; large pegs, more than 30 mm across, include: **79, 96?, 254, 330, 392?, 485, 491?, 526**.

Some pegs are described as "angular" (fig. d), which means that they are polygonal (perhaps octagonal) in section, with flat faces joined at shallow angles. As only parts of two or three faces are ever preserved, it is impossible to estimate their diameters accurately, so I have given a likely minimum. Angular pegs are usually relatively small, 20 mm across or smaller, and again I can see no significance in their occurrence (**100, 184, 383, 387, 397, 430, 473, 503, 513**).

R. Matthews (1991, fig. 2: Type 1) describes a kind of peg with a flared end which is known at Fara. The problem with this type is that we can no longer be sure that the object was not a narrow-necked jar or bottle; on the other hand the mace heads which are so prominent a component of the Near Eastern assemblage of artefacts show that some kind of flared or knob-ended peg, whether attached to a wall or a container, is also likely. A number of bullae could belong either to a flared peg or to a jar. All of them belong to the ED, Brak or Akkadian styles (e.g. **205, 264, 293**) except **491, 492** and **497** which are in EB styles.

Jar sealings were normally applied to the shoulder of a jar (fig. f), and often show the marks of cloth and string which were tied over the top of the jar (R. Matthews 1991, fig. 3:1). The type is common with stamp seals (**13, 17, 19, 25, 28, 46**) and also with ED and Akkadian seals. There are relatively few geometric or EB cases (**456, 486, 499, 556**) and not more than one in the Brak Style (**239?**).

A special type of sealing is described here as the "*package sealing*". These sealings (fig. e), approximately oval in shape when complete, have little or no visible curvature and usually show the juxtaposition of two planes on the back, both marked with crumpled material folds. The material is crossed by straight string marks which run right across the back of the sealing, with a thick knot in the middle. String normally runs down from the knot to the bottom of the sealing. On the other side, there are usually several seal rollings, often neatly laid out parallel to one another to form a faceted

170 Baker 1966, pl. IX (with string on knob), figs. 77-80, 106-129, 166-7, 169, 222-231; Lansing and Hayes 1937, 24-31, fig. 37; cf. Zettler 1987, 225 n. 43; Amiet 1980, 194.

171 We use talcum powder today for this purpose when making seal impressions.

172 Which could perhaps have existed, made on a principle similar to a modern rucksack with a frame, and sealable by tying a cord round the ends of the frame rods, cf. on the 'Standard of Ur' Woolley 1982, 102, bottom row.

173 Cf. Charpin quoted by Beyer 1985, 377 n. 6.

174 In my 1991 article on the Tell Brak glyptic I described several bullae as door sealings. The object descriptions in the present catalogue should always be preferred; some of the bullae then called door sealings were not even certainly peg sealings. I withdraw also the remarks on door sealings made in my book on the Nippur glyptic (1992, 60).

surface. I think it is probable that all or most of these sealings were originally attached to large jars, too large for the curvature to show, in the same way as the jar shoulder sealings described above. They have a more circumscribed distribution, concentrating as before on ED (82, 97, 104, 119) and Akkadian (277, 278, 298, 328, 338, 344, 352, 369?, 388, 393) style seals, but now also occurring in the Brak Style (216, 224, 259?). Other examples are EB (465, 476, 508) and perhaps Provincial Elamite (563). With the exception of 369, which is doubtful¹⁷⁵, the Akkadian seals all are or could be Early Akkadian. This is surprising, because most of the "package sealings" come from the "Sargonid level" of Mallowan which contains Late Akkadian tablets, while only 259 and 563, both uncertain examples of the type, come from contexts which may be Early Akkadian. More striking, many "package sealings" with impressions of the same seals were found in the ER "Contract Room" and "Sargon XY" which was probably nearby (277, 476, 508). These rooms were in a building which was regarded by Mallowan as a "substantial official residence" (Iraq IX p. 72). This finding of three seals, each quite different in style (early Akkadian, derivative from the Chuera Style, EB banquet), in multiple impressions of the same type in a similar context, is surprising. I believe that the multiple impressions make it very likely that the impressions are all *in situ* and that despite a few contrary indications¹⁷⁶ they all really belong to the Late Akkadian stratum¹⁷⁷. The consistent and multiple use of a special type of sealing, however, taken together with the nature of the building, suggests some kind of official bureaucracy. Either (assuming they are jar sealings) the same jar was sealed and re-sealed several times, or several jars of the same kind were sealed.

But why would a kind of official sealing be conducted using non-official seals? In the Late Akkadian period we would expect officials to use Late Akkadian seals. Stein (1993b, 123) suggests that at Nuzi "certain workshops, which offered a limited repertoire, were accessible to all, while others, more geared to changing fashions, were beyond the means of the average person." This suggests that a sequence of expensive fashionable styles were owned by high-ranking people, while other styles were used by ordinary people and were not so subject to change over time. She shows that originally exclusive motives were later adopted by the common workshops. Thus the relationship between seal subject and the passage of time was affected by whether the owner participated in high-status fashion. Such fashion is essentially intended to exclude outsiders from insiders: as soon as the outsiders imitate it, another fashion needs to be invented. What we may have in the Late Akkadian ER building is official seal usage by persons who are outside the fashionable sphere. Those social insiders who owned Late Akkadian seals performed other sealing actions (e.g. on the "flat bullae"); the persons or officials who sealed the ER jars(?) were social outsiders whose seals are either of non-standard type or which were "out of date"¹⁷⁸. A possible explanation of this is that late Akkadian seals were never made at Brak, and only persons with personal connections with the central government could obtain them. Others had to make do with old seals or the products of local "EB" workshops. It is interesting that there is no consistency of style among the seals used on the ER "package sealings". The message was therefore that a cylinder seal was being used, not what style of seal. Perhaps the ER building was, as Mallowan proposed, the residence of a high official who had access to the latest Akkadian glyptic for himself but who employed servants who did not have such access to control the movement of goods through the jars(?).

The "*knob sealings*" are the impressions of designs 143, 240 and 241, all from the floor of the SS Main Level in Room 18, the docket room. These have been described in former publications as door sealings (Oates and Oates 1993, 159; D. Matthews 1991) but this should not be regarded as certain. Nearly all of the impressions of these three seals are on unusually thick fragments with few remaining marks on the backs, but for each design between one and three cases has the impression of a rounded knob with a string mark running away from it. This is not like a normal peg sealing, where the peg is cylindrical and the string is wrapped around it, and the number of impressions of each seal is also exceptional (20-28 bulla fragments each). I therefore think it right to treat these impressions as a separate type. 143 is an unusually elaborate hatched Syrian Early Dynastic crossed animals contest; 240 and 241 belong to the Brak Style with animal heads, scorpion, human and inscription. The impressions of 241 are unusual and, so far as I know, unique. Every impression has a horizontal line marked across the field about two-thirds down from the top. The design is clearly visible both above and below this line, but in each impression *the relative position of the upper and lower area is different*. At first I thought this must be an effect of over-rolling, but the phenomenon is too consistent, and there are too many examples, for this to be credible. The explanation must be that the seal was broken and had been mounted on a spindle so that the two halves could move independently. Every time the seal was used the halves were re-aligned so each made its impression differently relative to the half on the other side of the line, which marks the fracture¹⁷⁹. It is then interesting that design 240, found in the same room and on the same type of

175 The Ashmolean impression is similar to a "package sealing", but is not a clear example of the type; the BM sealing is a jar sealing, but without the special characteristics of the "package".

176 476: Ashmolean 1939.332:51 is said to ante-date existing walls.

177 The docket, a common early Akkadian sealing type, is almost never found in higher contexts (except on the surface). This supports the idea that multiple cases of the same sealing type found in context do really belong to the stratum in which they are found.

178 I think it more likely that the early Akkadian seals were old than that a common workshop had continued making them; in either case, the social argument is much the same.

179 See D. Matthews 1995.

sealing, is so similar. I suspect that the owner of **241** found its broken state unsatisfactory and had a copy made. Why then were impressions of both seals found together? This would be explained if the sealings on the room floor were placed there all at once at the end of the use of the building when it was decommissioned prior to the ritual filling. The officials went through the rooms opening containers and removing what they contained, throwing out the sealings as they broke them. If there were several containers of the same type, each with a knob, sealed at different times with the three seals, then some might have been sealed with the old seal before the new seal was made. Then all the containers were opened and their sealings discarded together. If this explanation is correct, then "functionally" only two seals were used on these knobs, each of different style. **143** is then evidence for the continued use of the Syrian ED style in the early Akkadian period.

The jar and package sealings described above usually show marks of "material" on the back. This is a smooth substance which leaves the impression of crumple marks. In most cases, however, no sign of woven threads is visible. Sometimes this might be because the sealing is too indistinct for such marks to show, but more often it is probably because the material is not cloth but leather. Leather may have given a more secure seal, especially against liquids, than cloth. Cloth sealings do however occasionally occur, sometimes probably on jar sealings (**160**, **321**, **379**, **418**), more often without the nature of the package being clear. Cloth sealings are concentrated in the Akkadian period, including several impressions of the fine seal **346**; **66** may be an ED I example. **185** had an interesting cloth impression found within the ritual deposit from the SS Main Level and stained green by the copper in it; it may have sealed a cloth package which was part of the deposit.

The most interesting types of bulla in the Akkadian period are the "docket" and the "flat bulla". The *docket* is an oval bulla, usually with three or four sides, which was attached either to a length of string or else to nothing. Most dockets are marked along one edge with a row of holes, presumably numbers. All dockets are impressed with seals of the ED or Brak styles, except **484**. They must have been used in some special accountancy or administrative system, which required the use of particular seal styles. Although dockets were certainly in use in the Akkadian period, they are never sealed with Akkadian style seals, and except for surface finds no docket has been found either by Mallowan or the Oates in the upper strata (of the period of the Late Akkadian tablets), except **164** from a mixed fill.

Two main hoards of dockets have been found, each representing a different type. The CH 6 dockets (**138**, **180**, **484**) have seals of ED III and EB style. They are square-sectioned with string and number holes and one of them (**138**: REG 420) has a single cuneiform sign. **138** is rolled on several dockets which were found together. **180** has a detached lion head, but in other respects is a good-quality ED IIIA design. The dockets are large, between 50 and 95 mm long, and have a slender profile. Other dockets of this type (*fig. g*) are **91**, **140**, **145**, **146**, **164**. They do not all have string marks. All of the dockets of this type except **484** have ED designs and all of the others except **91** have crossed animals contest scenes.

The Main Level in SS produced a second type (*fig. h*), smaller dockets often about 30 mm long but with a plumper profile, either square or triangular sectioned, often with more elaborate markings such as grooves, circles, arrows or an L-shape (**201**, **242**, **245**, **249**, **258**). The seals on dockets of this type are now always in the Brak Style, especially with scenes mainly composed from animal heads. Numerous examples of dockets sealed with **242** and **245** were found in Room 18. **242** is usually on triangular sectioned dockets without string marks, the number holes being flanked by grooves, but without other marks. **245** is usually on square-sectioned dockets made around a double string, the number holes not flanked by grooves, but with other markings. Two docket fragments with seal **245** bear traces of cuneiform. **201** and **258** are each attested on two triangular sectioned dockets; **249** is on square sectioned dockets each marked with a circle. These Main Level dockets clearly belong to a sophisticated system in which information can be recorded in several different ways simultaneously: by the section of the docket, by the presence or absence of string, by the number of holes and whether they are flanked by grooves, by other marks occasionally but not usually including cuneiform, and by the seal-impression. These variables are not independent, but obviously change together regularly¹⁸⁰. The type is an elaborated variant on the CH 6 form, and the combination of the stratigraphic evidence and the change of seal style can leave no doubt that the difference represents development over time, CH 6 having a late ED system, and the Main Level an early Akkadian one.

We have seen that both types make occasional use of cuneiform annotations, but that most examples are anepigraphic. A small series of dockets from Brak and Chagar Bazar which bear short cuneiform inscriptions cannot readily be assigned to either group as described above. Like the first group they are relatively large (40-60 mm), usually with square sections; like the second group they are sealed with the Brak Style and are found in the SS Main Level and FS 5 (**183**, **219**, **226**, **257**). **183** and **219**: BM 131690 (*fig. i*) both have a long curved groove and a collection of tiny holes on the side. **175** is similar in shape and comes from FS 5 but it is not inscribed and it is not sealed with the Brak Style. This third group seems to be a variant early Akkadian group, where extra information is

180 For some suggestions on how the system might have worked, see J. Oates 1993b.

borne by a longer cuneiform inscription rather than by the elaborated system of markings of the SS bullae¹⁸¹. The location of SS Room 18 on the edge of the ceremonial complex, with its own exterior door, may indicate that the administrative process took place at the boundary where inside and outside persons encountered each other¹⁸². On the other hand, dockets from the ritual deposit in SS Court 8 and from courtyard 43 in FS near the shrine suite may indicate an original attachment to organic objects of ritual significance.

The remaining docket fragments cannot be assigned to one of these groups; all are sealed with the ED or Brak styles (117, 125, 172, 187, 192, 199, 214, 227, 235, 239, 256). 176 should probably be regarded as a different type.

Bullae similar to these dockets are attested from the earliest times¹⁸³ and were popular in the Late Uruk period¹⁸⁴. Although we find them at Brak in the earliest important third millennium assemblage in CH 6, there is no reason to suppose that they existed there before the later Early Dynastic period. They probably originated at the same time as the Brak Style (which exists, though not on dockets, in CH 6) as part of the local development of urban institutions. This essentially Syrian system of administration reached its peak in the early Akkadian period in the SS Main Level, and the use of this local tradition, rather than the import of a southern system, supports the idea that the SS and FS buildings were constructed by and for local rulers. Cuneiform existed at Brak during the period of the dockets and was occasionally applied on them, but the system was essentially anepigraphic.

In the Late Akkadian period we see the disappearance of the Brak Style and of the system of administration through dockets for which this style was used¹⁸⁵. An imported system using Akkadian glyptic and Late Akkadian tablets was introduced from outside, but the tablets were not themselves sealed. We have seen that the ER "package sealings", which probably date to this time, used various kinds of unfashionable seals¹⁸⁶.

The best candidate for a more high-status type of bulla in the Late Akkadian period is the "flat bulla" (*fig. j*), a round disk with two flat main surfaces and a curved edge surface, all of which are sealed. On one side of the "flat bulla" there is a large hollow with the marks of string and crumpled cloth or material, rather as though the bulla was made round a corner of a cloth parcel where it had been tied up. "Flat bullae" are carefully made with distinct edges and surfaces, and they can bear short cuneiform inscriptions. Clear examples of "flat bullae" are: 295, 317, 370 and 371; while 137, 168, 268, 286, 307, 319, 372, 373, 389 have the carefully shaped edges or other features of the "flat bulla" but are too incomplete for the type to be clear (*fig. k*). Stratigraphically, the type is found in the "Sargonid" (i.e. Late Akkadian) level of Mallowan (373, 389) or higher; or in the upper levels of the Oates excavations, the earliest cases being 317 from just above the FS 5 walls and 137 from the top of the fill of the Main Level in SS. The seal style is always Akkadian except 137 and 168, both of which are not typical cases. 268, 286 and 295 are probably early Akkadian while 317, 319 and 370 have Late Akkadian features.

Zettler (1977, 37) has collected seals used by the Akkadian state administration, as marked by the use of royal names in seal inscriptions. This kind of seal is late Akkadian and many of them are attested on "flat bullae". 317, a perfect example sealed by the governor of Gasur, clearly illustrates how this kind of bulla was used for correspondence between the highest officials of the Akkadian state¹⁸⁷; 319 was sealed by a servant of Naram-Sin. 370 is another perfect example, sealed with a Late Akkadian seal whose iconography suggests a possible origin in the region of Eshnunna (see p. 142). This suggests that the "flat bulla" was attached to goods travelling from one place to another in the course of official business, and that sometimes the opportunity was taken to convey more information. For example seal 371 is attached to a "flat bulla" which bears a short letter reading "Thus Beli-abum to Ilulu, my brother: I am in dire straits!"¹⁸⁸. Perhaps more normally this was done verbally by the messenger.

Various explanations are possible for those bullae which do not fit this picture of Late Akkadian glyptic being used on "flat bullae" as part of the late Akkadian state administration. Some of the objects listed here may have been other types of bulla which are now too broken to understand. 295 is however a clear case with an early Akkadian seal-impression: therefore either the practice commenced before the time of Naram-Sin, or else in this case an old seal was used¹⁸⁹. 168 has a cuneiform annotation but the double string mark and the seal style makes it more likely that it is a local (but perhaps related) Syrian product than the result of Akkadian official administration. It is not improbable that an official practice was either modelled upon, or inspired, less formal situations¹⁹⁰.

181 Cf. the unsealed inscribed bullae at Mari: Charpin 1987, 77.

182 J. Oates 1993b. For the use of records at the interface of different systems, cf. Foster 1982, 24.

183 Arpachiyah: Von Wickede 1990, nos. 54-56.

184 Amiet 1980, 199; e.g. Strommenger 1980 Abb. 56-57; cf. at Brak D. Oates 1982, pl. XXVd.

185 This statement depends on the chronology defended above, pp. 169-171. If the Main Level is late Akkadian, then another interesting scenario develops: that two administrative systems, each with its own characteristic seal style, cohabited on the site, each in its own separate buildings.

186 This is not evidence to support the idea that the dockets were another late Akkadian "unfashionable" system. The "package sealings" were sealed with cylinders, but any style would do; on the dockets, the style was deliberately chosen.

187 Cf. at Nuzi, Meek 1935, xviii, no. 3.

188 I am much obliged to Dr A. Westenholz for this translation, in a letter of 1994. He used the publication and a copy made by me.

189 Nagel and Strommenger 1968, 179, interestingly compared the Enheduanna Disk from Ur (Orthmann 1975, Taf. 101) to a sealed bulla!

190 For example, a similar system could have been used by the local rulers of the Khabur after the fall of the Akkadian state. As no local seal style existed at that time, officials would have had to use whatever seals they could obtain.

Basket impressions (fig. l) show a peak in the Akkadian period (314, 323, 346, 363, 390)¹⁹¹, with a few cases belonging to other later third millennium or undatable styles (171, 215, 425, 455, 496, 550). These impressions should be distinguished from a type called here the *basket disk*. This is a round disk of clay, sealed on the convex surface, with a basket impression on the flat base (fig. m). Ferioli and Fiandra (1994, 151-6) recognised similar sealings at Arslantepe in the dump of sealings in room A206 and interpreted them as belonging to the basketwork lids of containers. They interpret this dump as the final product of an accounting exercise in which sealings collected by the administration over a period were counted, checked and then disposed of. The basket sealings were made of fine quality clay and were only found in the topmost layer of the dump. Ferioli and Fiandra suggest that the other sealings were kept during the accountancy period before the final checking in baskets or in pots with basketwork lids; and that the final check in the sequence was of these lid sealings. They support this idea by reference to the "pisan-dubba" texts of the Ur III period¹⁹², which were tablets describing the contents of containers of tablets, which were attached to the containers. At Arslantepe tablets were not used (except perhaps in a primitive way to make check marks) but it is suggested that sealings might have performed some of the same functions so long as the procedures were very rigid¹⁹³.

The basket disk at Brak is known mainly with stamp seals and ED I cylinders (6, 9-12, 20, 70, 72-74). Other examples belong, or may belong, to the same period of time (44, 64, 406, 457, 536, 543). 86 is the only design on a basket disk which is likely not to date so early. The stamp seal impressions make it probable that the sealing practice was a local one; yet it is likely that the ED I impressions were all imported, because there is so little other evidence for ED I glyptic in Syria (see p. 131). So the "basket disk" at Brak may represent some kind of traded container rather than an accountancy device, with goods traded in baskets both from the south and from other places in Syria. At Nineveh, probably at the same time in the early Ninevite V period, fired steatite seals were extensively used on basket sealings, and I have suggested that this was part of a trading network reaching east to Elam¹⁹⁴. At Brak we only have one fired steatite style design on a basket sealing (64), and that not a certain case of the style, so the situation is different. The table shows no preference for any particular type of bulla with this style.

Disk sealings are a similar type, a disk with the seal-impression on the convex side, but with a plain flat base (fig. n). Nearly all of them have impressions of stamp seals (3, 4, 7, 14, 15, 18, 21, 24, 26, 27, 29, 32, 34, 39). With the possible exceptions of 416 and 541, all the other apparent cases (178, 191, 395) are probably fragments of other types of bulla. The question of string is important, and it does occur among the stamp sealings in 14, 15, 18, 21, 24, 26; in other cases a large part of the bulla is preserved with no sign of string (7, 32, 39). Weingarten (1990) has defined a type of bulla called a "nodulus" with no visible means of attachment ("sealings that do not seal"), which she explains as "mini-documents given in return for work, to be exchanged for rations or other forms of payment", or perhaps as a means of identification of messengers. They played a significant role in Minoan administrative history and the bulla type is regarded by Weingarten (1991) as an import from the Near East or Egypt. It is questionable whether these disk sealings at Brak are similar to this type, or whether they were all attached with string to some kind of container which leaves no recognisable imprint on the bulla. Even if they were attached to strings, however, it does not follow that they could not have functioned as docketts or tokens, since the much later docketts of the late ED and early Akkadian period at Brak (see above) can also be either attached to strings or not.

The "block" (40, 280, 557) is a special kind of unbaked clay object, made of exceptionally good-quality hard clay, with very carefully made surfaces which were not formed by impression against some object. All of the extant "blocks" are broken and the original shape is uncertain, but they have a trapezoidal sealed surface and a smooth ledge or channel at the back (fig. o). The three known designs are all quite different, suggesting that the seal style was not important. 280 has the latest style, probably Early Akkadian; 557 probably has the earliest context¹⁹⁵, perhaps in Mallowan's lowest level, also probably early Akkadian. The bulla type is so consistent that all the pieces were probably made at that time: this is the more likely in that original seal-impressions in the style of 40 are generally so rare. I cannot suggest what the original function of this type was, but it should be noted that two of our three designs are each attested twice on fragments which do not join.

Finally *test strips* (fig. p) are bullae which resemble the modern seal rolling, being probably made for the same purpose, namely to see what the design looked like. It is also possible that some of them had functions similar to the "nodulus" discussed above; but they are easily broken and not well adapted to any function which would require them to be carried from one place to another. It is curious that most of the known examples belong to the figurative styles of the later third millennium, with only one example each from the geometric and other figurative styles (76, 84, 88, 90, 98, 101, 103, 106, 108, 113, 121, 131, 133, 139, 142, 173, 182, 188, 195, 204, 208, 218, 221, 224, 247, 248, 261, 282,

191 Cf. a basket covered in bitumen found in the FS site, D. Oates 1985, pl. 27d.

192 Cf. Foster 1982, 12.

193 Ferioli and Fiandra 1994, 134, 164, 170. Cf. in the Middle Bronze Age of Anatolia, Weingarten 1994.

194 See p. 85. Cf. at Tell Leilan, Parayre 1987-8, 129.

195 The context of 40 in the Eye Temple platform area does not imply a date earlier than the late third millennium.

291, 311, 316, 325, 326, 362, 368, 408, 471, 474, 477, 501, 515, 542, 559). If they were made only to view the seal design, then they should include only styles which were used locally¹⁹⁶. Of the ED seals which I suggested above might be imported (see p. 135) only 76 is rolled on a test strip. This is possible evidence against the proposal made above (p. 131) that the ED I style was not made in Syria; but although 76 has been described as a test strip it is broken and rather thicker than usual, so the most likely solution may be that the bulla category is in error¹⁹⁷.

4. Functions: summary

The earliest bulla types are those which were used for stamp sealings, mainly the disk, with some basket disk and jar sealings. This contrasts with the archaic stamp sealings from Tepe Gawra and Arslantepe, which are mainly on peg sealings and jar sealings (Rothman 1994, Frangipane 1994). Without sealings *in situ* it is not possible to speculate about how sophisticated a system of control was supported by these sealings.

The archaic and fired steatite sealings are too few to give a picture of what kinds of bullae were preferred. 58 and 468 may be sherd impressions in fired steatite style; but this would not be thought more significant than the two sherd impressions in ED style if many sherd impressions of fired steatite style had not been found in the Hamrin district of eastern Iraq.

ED I designs show a particular preference for basket disks and perhaps also for peg sealings (68, 77?, 79). As explained above (p. 178) I do not believe that all peg sealings are door sealings sealed at the site in which they were found, and the peculiar bullae impressed with 79 (*fig. b*) support the idea that these pegs belonged to some kind of package. I take the basket sealings also as evidence for trade imports.

In the later Early Dynastic period peg and jar sealings became dominant. Peg sealings had existed from the beginning (16) but only became frequent now. They are common with all the remaining seal styles. ED seals also occur on a wide variety of other bulla types, the "block" being the only one not attested at least once. More significant are the dockets which were invented, or re-invented, probably in the later ED III period as a special native method of administration. In the early Akkadian period the docket reached the height of its importance, now elaborated in form and sealed with the Brak Style. This style does not occur on so wide a range of bulla types as the ED seals, confirming the impression of administrative specialism in its use which was given by the dockets. It was often used on peg sealings, perhaps really to be understood here as representing the doors of store-rooms, and much less commonly on other bulla types.

Jar sealings, on the other hand, do not usually bear the Brak Style, but they are common with Akkadian seals, which also favour peg sealings and other kinds of containers including cloth packages and baskets. The "package sealing" may be a special kind of late Akkadian jar sealing for which then unfashionable seals were used. The "flat bulla", by contrast, seems to have been used to seal packages exchanged between the highest officials in the late Akkadian state. Similar bullae with other styles of seal may have a fortuitous similarity, or may represent practices derived from or ancestral to the state system.

Geometric seals were much less often used for sealing than the other styles; the only common bulla type bearing them is the peg sealing. EB figurative styles, on the other hand, were used on a wide range of bulla types, with a distribution similar to the ED seals, except for an almost complete absence of dockets. So it may be suggested that in the later third millennium geometric seals were not normally made to be used for sealing; ED and EB figurative seals were made for general purposes, and Brak and Akkadian styles were used in special administrative situations.

The use of more than one cylinder on the same bulla is very rare in Early Bronze Age Syria: at Brak the only cases are 62/555 and 328/388. Other cases from the north are the Nineveh bulla FI 29-30 and the Habuba Kabira tablet Strommenger 1973, 66 fig. 27. The rolling of different seals on the same bulla is an obvious kind of advanced sealing practice, as discussed for example by Dittmann 1986 for Late Uruk Susa, or by Martin and Matthews 1993, 27 for the stamping of cylinder impressions with stamp seals in ED IIIB Tell Abu Salabikh. The latter practice is occasionally attested in Syria¹⁹⁸, but it is not known at Tell Brak.

196 I owe this suggestion to J. Weingarten.

197 Some errors are inevitable when categorising incomplete objects.

198 Tell Sheikh Hassan: Boese 1986-7, figs. 38-9; Tell Chuera: Moortgat-Correns 1988a, 22 Abb. 9.

V. SUMMARY AND CONCLUSIONS

1. Summary: regional development

In this section the development of the glyptic of Syria in the Early Bronze Age is summarised, indicating how the evidence from Tell Brak affects the conclusions given in Chapter III. Subsequently I shall discuss how the glyptic fits into the general development of Syrian culture with an exploration of some of the political and economic implications.

1.1 Earlier geometric scenes and Ninevite V glyptic

As in other phases of Near Eastern glyptic, Uruk cylinders may be divided into common and high status seals. The high status cylinders originated in the Middle Uruk period and were always figurative. Designs have individual features though the same design was sometimes repeated. They are known mainly from ancient impressions and from them developed the glyptic styles of the Early Dynastic and Proto-Elamite cultures. Common Uruk scenes are of three main kinds: domestic, animal rows and geometric. Designs are repeated without much variation and very few ancient impressions are known.

While common Uruk domestic and animal scenes were among the ancestors of the figurative glyptic of the Aleppo Series, and some traces of the iconography of the higher status Uruk glyptic may have survived in the rare designs which I have called "EB narrative scenes", the geometric patterns were the only kind of Uruk scene which continued to be made more or less unchanged outside southern Mesopotamia after the end of the Uruk period. The full range of Late Uruk geometric seals probably continued throughout the area of the Uruk intrusion in Syria and Assyria during EB I. This is shown by their frequent occurrence in strata of this time: Uruk figurative seals are much less common and probably all represent antiques. In Late Uruk contexts, the opposite is true: figurative designs outnumber geometric ones; but the geometric seals occur in significant quantity.

In the east, most of the Uruk geometric patterns, such as the lozenge, the diamond, the lattice and the chevron, probably continued until the end of the Ninevite V period. Early guilloche and wave patterns seem not to have persisted after EB I, but two kinds of wave pattern did exist later, one in EB II perhaps derived from fired steatite glyptic, and the other in the later third millennium in the Early Dynastic tradition. Much the same is true of the triangle pattern. Spiral patterns are too rare for their distribution to be understood, but like the diamond patterns they exist both in the east in EB I and in the west in EB III-IV.

A sense of international contact is attested also in the dissemination of the fired steatite seals in eastern Syria and Assyria. There is evidence for the use of the fired steatite style seals in administrative contexts in Elam and perhaps also in eastern Iraq, but in Assyria and eastern Syria they are known usually in impressions on container sealings, perhaps as part of a trading system. Fired steatite designs are stratified mainly in early and middle Ninevite V contexts, but they probably inspired many of the geometric designs of the later Ninevite V period, especially those based on wave patterns and excised triangles. Designs based on circled dots, which also look like a derivative from the fired steatite style, are mainly attested in western Syria, outside the range of the fired steatite seals. This may represent a contemporary EB I derivation in a region which did not participate in the "fired steatite" trade directly, but which nonetheless had contact with regions which did. Such contact is also illustrated by the wide associations of the rare EB I-II designs of better quality.

The glyptic of the Ninevite V area thus shows no originality. Nearly all the designs are geometric, and are derived either from the Uruk geometric tradition or from the fired steatite style. In the later Ninevite V period these patterns were continued, but the underlying principles were forgotten and derivative forms were introduced using similar elements in a less structured way. Figurative designs are rare and do not show recognisable local trends¹. Seal-impressions are not uncommon in Ninevite V sites, showing that the seals were used, but there is no evidence for sophisticated systems of sealing practices such as existed before and after the period. Only at the end of the Ninevite V period was this uninspiring picture revitalised by an influx of ideas from the south and the west; the local older glyptic inheritance was then largely abandoned.

In western Syria, the Uruk type geometric patterns were applied to seals with the special attachments of the Aleppo Series. This region may also have received ideas from contemporary styles such as the fired steatite glyptic.

¹ Cf. Sørenhagen 1990, 151 fig. 28; Ii and Kawamata 1984-5, fig. 31:11; Thompson and Mallowan 1933, pl. 65:15, 66:16; Roaf 1984, pl. XIIIg; Parayre 1988, no. 7?

The different scene types were subsumed into a stock of undistinctive designs, such as the swirl patterns, in which the distinction between geometric and figurative scenes, which was a vital principle of composition in the Uruk period, was lost. The western designs of the later third millennium tend to be more directly derived from the more native traditions of EB I-II, but some typical later forms such as the diamond pattern with concentric hatching may derive from the Uruk tradition via the Aleppo Series.

Geometric seals are very common at Tell Brak and include examples of all the important Uruk patterns. Some examples of each pattern probably come from the important deposit of seals of the Uruk period in the Eye Temple, but very few objects from there are securely stratified. Only the lozenge patterns have consistently early contexts at Brak. Tell Brak indicates, however, that some at least of the chevron, diamond and lattice patterns may well have been used as late as the Early Akkadian period, and may therefore have been made as late as ED IIIB, using the general principle that seals are usually deposited in good contexts not more than one phase after the time in which they were made. This is contrary to the suggestion which I made from the comparative evidence, that the geometric patterns belong to the Ninevite V period and not later. Geometric seals are reported from several sites in eastern Syria from ED III contexts, but the provenances are insecure and I thought it likely that they were all redeposited from the Ninevite V period. The evidence from Brak, especially the seals found on the floor of the SS Main Level (426, 441), suggests otherwise.

Brak has an important body of fired steatite glyptic, including both actual seals and impressions: it is the most westerly such site. The Oates excavations did not find glyptic in secure Ninevite V contexts, but the style is represented in R. Matthews' early Ninevite V pit (1994, 181 fig. 4).

Much of the EB glyptic from Brak is figurative, and it is not certain that figures did not exist in many of the designs which are too poorly preserved to be understood. The Aleppo Series is not represented in this catalogue, with two atypical exceptions (402, 428). Brak does not at present give useful information on the coarse derivative glyptic of EB I-II.

1.2 Western Syria in EB I-II: common figurative styles

There is unfortunately very little stratified evidence for this time in an area of great importance for the future development of Syrian glyptic. We may divide the material into three groups: geometric, figurative, and narrative, the latter being distinguished from the figurative glyptic by having more specific scenes and wider-reaching international connections. Stratified glyptic from western Syria comes only from Amuq G, all of it geometric or unintelligible (Amuq fig. 235, 254), the geometric patterns including diamond patterns, the lozenge, circled dots and swirls.

This information may be supplemented with evidence from adjacent districts which are less likely, on account of their peripheral geography, to have carried the main tradition. The most interesting source is the EB I of Hassek Höyük on the upper Euphrates, which apart from geometric seals like those of the Amuq, has also yielded two important other groups. First there are several clay seals, mostly of the crudest geometric kind, but including in Behm-Blancke 1984, pl. 12:2 a seal which one might date 500 years later if it were found out of context. The simple linear engraving, the animals and the hatched border were to remain popular in Syria for the rest of the millennium. The "Hassek style" is even more significant in its humans with raised arms and animals with broad feet. This is an obvious ancestor for the western Syrian tradition of EB III, as is illustrated by the comparison between Ash 721, to be classified with the glyptic of EB I Hassek, and Copenhagen 112, which cannot be separated from the "Syrian Animals style" of EB III². Amuq fig. 382:4 is especially significant because of its clear depiction of the man with raised arms and splayed fingers already in the EB I group.

The glyptic of the coastal Levant is best known in the EB II Byblos style. A few designs can however be dated earlier, in EB I. They include geometric designs of the familiar Syrian kinds (triangles, diamonds and swirls) and simple figurative designs similar to seals of the Aleppo Series (FI 47). More important are some sherds from En Shadud and Megiddo which show what are clearly the ancestors of the Byblos style: simple rows of animals impressed on sherds, including the tête-bêche principle (FI 65).

The character of the figurative seals of western Syria is best understood with reference to the "Aleppo Series", which is defined by the use of special attachments such as handles or loop-bores. The stratified examples of this kind of seal, especially from the Amuq region, show that it belongs to EB I. We find seals connected to the Hassek style (Amuq fig. 382:4, Ash 721), or perhaps derived from schematic Uruk (Amuq fig. 382:1, 2; Ash 712, 715); some interesting designs perhaps related to early Egyptian seals³; and in Copenhagen 114 a composition similar to the Hassek style, but without the flowing lines which are typical of that group.

2 Cf. p. 65 n. 44.

3 Collon 1982a, no. 2, Marcopoli 316, etc.

In eastern Syria and Assyria it is easier to recognise the EB I period because of the distinctive Ninevite V pottery. As a result a considerable corpus of stratified glyptic is available. A striking difference from the western sites is the fired steatite style, which in more or less pure forms is found wherever early Ninevite V pottery has been excavated. The other geometric seals are similar to the ones found in the west, including diamonds, chevrons, triangles, spirals and lozenges. Figurative designs are rare. A copper seal from Tell Karrana 3 (Stein 1993a, pl. 45:3) may be a western import. The splayed feet of the animal are quite like the Hassek design Behm-Blancke 1981, pl. 11:14; while the use of copper also has a parallel at Hassek in Behm-Blancke 1984, pl. 12:4. Other seals from Nineveh and Kutan also seem to be most similar to EB I glyptic from the west (Collon Yale I, Bachelot 1987, fig. 10 upper).

Thus western and eastern Syria shared a common inheritance of simple geometric designs which were derived from Uruk glyptic. In the Ninevite V area there was also a large component of fired steatite seals and local seals which imitated that style; while in the west there was an inland figurative tradition of simple designs featuring horned animals and humans, sometimes with raised arms. It seems probable that the figurative designs of EB I-II eastern Syria and Assyria were imported from this western tradition, as despite a larger corpus of stratified evidence they remain extremely rare and show no traits which are not also attested in the west. A related tradition with a more coastal distribution, used primarily on sherds, is best known in the EB II Byblos Style but certainly existed in EB I.

In looking for the origin of the western figurative traditions we have two obvious sources: the stamp seals and the Uruk style cylinders. The Aleppo Series was derived mainly from the Uruk style. We can see this in the "byre-shaped seals" which are the earliest manifestations of a local school of cylinders in north Syria. The "byre-shaped seals" have a standard "Jemdet Nasr" iconography. The main part of the Aleppo Series, with its handles and loop-bores, shows connections to most of the known EB I geometric and figurative groups, such as the Hassek style. An independent derivation, probably directly from the stamp seals, could have been the source for such details as hands with splayed fingers, animals with wedge-shaped legs, and above all the tête-bêche principle.

This interaction between the two original sources, stamp seals and Uruk cylinders, took different forms in different places. Already in the Uruk period what I have called the "native seals" and the Mannered style had shown the influence of stamp seals on cylinders, in the manner of engraving and in the tête-bêche principle. At the same time the "byre-shaped seals" began the local glyptic of North Syria. In EB I the Uruk tradition survived mainly in the Aleppo Series and in the geometric seals. The Hassek style and the EB I sherds are both more directly in the stamp seal tradition, but while the Hassek style has connections with the Aleppo Series and does not include tête-bêche designs, the sherd designs are not at first connected with the Aleppo Series and do include tête-bêche figures. Then in EB II we have the Byblos style, which is most closely in the tradition of the EB I sherds, but which also, especially in the more elaborate series, can be connected both to the Aleppo Series, in the use of handles, and to Uruk glyptic through the EB I narrative series.

More difficult to account for, because there is so little evidence, is the EB I-II narrative style of western Syria; yet we may be sure that it existed. It probably originated in the Uruk period, not in the geometric and schematic designs which inspired the Aleppo Series, but in the modelled style which was in use at Habuba Kabira, Jebel Aruda, Sheikh Hassan, Brak and Nineveh. The earliest Syrian style in this tradition is probably the group with quadruple spirals, which originated in the Late Uruk period and which may have survived into EB I and later. These designs have relations with motives travelling across Syria from Susiana to Egypt, such as the griffin. I have drawn attention to a few designs, including the earliest cylinder impression from Byblos and designs from Hassek, Hammam et-Turkman, Nineveh, Tell Sabra in the Hamrin region and Susa, several of which can be dated to EB I. They belong to a world, quite different from the common figurative designs mentioned above, in which Uruk-type scenes were used in the context of links between Susa and Syria. The early Syrian narrative scenes continue the connections which had existed in the Uruk period, but now show features such as animal protomes and other unusual compositions, including the tête-bêche principle, which are familiar in EB I Syrian glyptic, but which were not used in Uruk seals. Like the Aleppo Series, this tradition cannot be called a style because the individual cases are quite various; and again like the Aleppo Series, it had little influence on later seals. But it may be the main source of the peculiarities of the more elaborate Byblos seals, and thus acted as the vehicle by which Uruk traits such as the lion reached the Levantine coast in EB II. The Tell Sabra sherd impression (Tunca 1987, pl. 107), though it comes from eastern Iraq, is of great importance here. The seal was probably made in Syria as it conforms exactly to the style of the other pieces we have seen, and the stratification confirms the date in EB I. The man with raised arms and splayed fingers and the animals with wedge-like feet might have been engraved in the Hassek style, but unlike all the other EB I-II tête-bêche designs we have, the principle is here applied to human beings. It is therefore possible that there were other seals of this kind in EB I, probably in inland Syria, which were ancestral to the tête-bêche humans which are found in EB III⁵. Another source of evidence is the western features of the Chuera Style. These are similar to the EB III inland Syrian

4 Though Nuzi pl. 41C may show these splayed feet even earlier.

5 E.g. Ash 723?

glyptic, but probably pre-date it (see p. 117). Since the original derivation of these features is in EB I in the west, it is reasonable to think that a style in this tradition existed in western Syria in EB II.

There are therefore good grounds for thinking that at the beginning of EB III two major sources of figurative inspiration were available in the west. The Byblos style provided animals, and the inland style, according to this reconstruction, provided both animals and humans, including humans with raised arms. The tête-bêche principle was certainly in use at Byblos and may have existed also inland. The Uruk narrative tradition did survive into EB II in the west in the form of the elaborate Byblos seals, but seems not to have continued thereafter. A possible exception is the lion, which only exists in the "Narrative" designs in EB I and in the more elaborate Byblos seals in EB II, and which reappears in the Syrian Animals style in EB III.

1.3 EB III

Strangely enough, considering the popularity and range of subjects of the Aleppo Series, it does not seem to have had a major successor. Instead the Syrian glyptic of EB III seems to have derived from sources which did not transmit the remaining Uruk motives which survived in the Aleppo Series. The Byblos style should be the main source of the concept of sealing sherds in EB III (though geometric sherd impressions probably existed in EB II in inland Syria), and particularly for the use of animal rows and the tête-bêche principle. But humans are strikingly rare at Byblos, and therefore the man with raised arms is more likely to have come from the reconstructed EB II style of inland Syria. This figure is most prominent in the Syrian Animals style, which I suggested belonged to the Euphrates region in EB III. This style is rare at Brak (558-560) but the contexts suggest a date in the early Akkadian period which is not much later than the final ED contexts in which it is stratified elsewhere.

The EB III-IV sherd impressions of Ebla and Hama show a wide range of scenes, from geometric patterns possibly in a tradition running back to the Aleppo Series, such as the diamond and the chevron, to crude clay seals which were made at all periods in imitation of more regular styles, to a series of types which are related to the Byblos Style and the Syrian Animals style which represent the two major inland and coastal western traditions. The Ebla and Hama sherds include animals, often tête-bêche or associated with a large rosette, humans, often with raised arms in rows, and more derivative types such as the "hatched panels" and "flowing" styles where the subject matter appears lost in the desire to cover the field with decoration. There are also Early Dynastic and, rather more often, ED derivative scenes among these sherd impressions. The special function of sealing potsherds may imply that the native tradition was preferred for particular sectors of the economy, such as the exchange of agricultural goods, while the central state administration may have preferred to use other styles more closely related to Mesopotamian models.

A few impressions from Brak (484-487) are closely related to the tête-bêche group of western sherd impressions. They are stratified in contexts which may date from ED III to Late Akkadian.

1.4 Early Dynastic glyptic in the north

ED I and ED IIA seals are very rare in the north. Apart from a few sporadic cases, all of which may have been imported, the only significant collection is from Tell Brak. These are all impressions and are often on basket sealings, which may imply that they were all imported. Although generally similar to the ED I of Fara, the hatched borders suggest a provenance somewhere presently unknown, perhaps in northern Babylonia.

The influx of Mesopotamian ED II-III ideas into Syria probably started already before the end of EB II, but direct evidence from western Syria is unfortunately hard to find. The limited number of designs stratified in EB IIB (Halawa, Ebla, Hama) are all geometric, like the stratified seals from Amuq G⁶. Once again we have to look elsewhere. Palestine does not help us, because of the excessive length of what is called EB III there⁷; so we have to look again at the Ninevite V area. In Assyria and the Khabur EB IIA is represented by Late Ninevite V (incised and excised) before the beginning of stoneware. Glyptic stratified with this pottery is almost exclusively geometric, of the same kinds which were known before, derived either from geometric Uruk seals or from the fired steatite style. A phase in which Ninevite V pottery and stoneware are found together is assigned here to EB IIB, and this gives us some chronological precision for the introduction of Early Dynastic forms into Syria. Apart from an impression from Tell Raqa'i 3 (Curvers and Schwartz 1990, 20 fig. 23), which is hard to understand, all the stratified material from this time in the Ninevite V area is of the types previously known in the region, derived from geometric and fired steatite seals, with the single exception of the impressions from Leilan III d which are discussed below in

6 Cf. p. 100 n. 199. The one apparent exception is Copenhagen 115, allegedly from Hama K, but I do not believe the Brak style can have existed so early.

7 It would be useful for those familiar with Palestinian materials to isolate designs which are stratified in the first half of the period.

relation to the Chuera glyptic. Nonetheless there was probably a major influx of southern style into Syria at this time, when contest friezes with crossed animals became popular in the south. The classic ED II Fara style is not commonly represented, except at Mari: it is absent from Brak. But probably many of the crossed animals contest scenes from Syria belong to this phase. This is most obvious at Chuera, where a recognisable group from the Kleiner Antentempel West-Erweiterung probably belongs to this phase, but it may also be true at sites such as Tell Brak where no ED IIB group can be isolated. At Brak this is probably because no stratified deposits of this phase have been excavated.

A similar picture obtains in ED III. Classic heavily modelled ED III contests, of the kind known in the Royal Cemetery of Ur, were probably not made in Syria. A few impressions of this kind from Brak were probably imported. This type is also very rare in the Diyala region. There are however many Early Dynastic contest scenes from all over northern Syria, many of which show clear ED III traits such as the stag and lions with frontal heads. At Brak the type with identical crossed lions is predominant, but in other sites there are also many friezes where the crossing animals are unlike (especially at Mari), or the figures are not crossed at all. Although there is usually little specifically Syrian about the engraving style, except for a preference for heavy hatching of the manes and sometimes even bodies of the animals (a trait perhaps related to the native Syrian Animals Style), there are some Syrian peculiarities to many of these seals, such as a preference for a clothed rather than nude hero, which, together with the sheer bulk of the material and the finding of actual seals, demonstrates that the type was made in Syria. The impressions of Tell Chuera show how important the style was there; further west, large numbers of seals or impressions are not available, except on sherds for which native styles were preferred. Therefore it is difficult to know whether the ED seals which are found in small numbers in all the western Syrian sites are imports or were locally made. The strong Early Dynastic influence on other aspects of culture at Ebla makes it likely that ED seals (apart from the distinctive Palace style) were made there; but so few actual seals have been published from Ebla that it is hard to be sure. The strong similarity of this material with much of the excavated glyptic from the south shows how thoroughly Early Dynastic culture was assimilated in Syria at this time, even though southern pottery forms were not adopted in the north, except at Mari.

In seals of this ordinary quality there are no criteria known to me which enable one to tell whether seals of "ED IIIA" type were actually made in ED IIIA or ED IIIB. There are however some designs which only occur in ED IIIB, such as the "Group of Five" scene, where the figures do not cross, and the Angular Style, which continued into the Akkadian period. These are much less common than the crossed animals contests, which probably comprise most of the ED IIIB production. "Group of Five" contests are known mainly in the "Trésor d'Ur" from Mari, but a few other examples come from eastern Syrian sites. The Angular Style exists in Assyria, but is almost absent from Syria. At Tell Brak, a few seals are of ED IIIB type and rather more belong to the Angular Style: but most of the latter have Akkadian features.

The datable seals discussed above are all contest scenes; other scenes in the Early Dynastic style cannot reliably be assigned to a subphase. Most of them are banquet scenes which are found in the same region that yields the contest scenes, from Assyria to Ebla with occasional examples further west. The scene was especially favoured at Mari and there are relatively few cases from Chuera. Brak also has relatively few compared to the contest scenes. The scene of an eagle and animals occurs only in eastern sites; at Brak it occurs both in the Brak Style and in a style transitional to Akkadian.

"Special scenes" are those which refer to a particular "story". They differ from the scenes discussed above in that details are shown which are not necessary for the harmonious arrangement of the figures, but which convey particular information required by the scene. These designs should probably be understood as illustrations of myth or ritual, and are generally less common in the ED period than in the Akkadian. Mari is the only Syrian site which has a significant number of such scenes of southern type, such as the boat-god, the chariot scene, and the "building a ziggurat" scene. The worship or combat of the gods does not occur in ED seals from Syria; in the south, seals of this kind may belong mainly to the end of the period when cultural links with Syria may have been weak (except at Mari and Ebla), to judge from the rarity of "ED IIIB" contests in the north. Only the scene of men in a boat occurs elsewhere, at Assur, Gawra, Hama and Brak. Brak does have two boat-god scenes in an ordinary ED style of engraving (80, 81) which I suggested may both be imports since one of them has good parallels in eastern Iraq (see p. 131). The situation is quite different in the Brak Style (see below).

There are also "special scenes" engraved in the Early Dynastic style from Syria which have no counterparts in the south. The prime series is from Tell Brak (84-89) and shows the "Syrian Ritual", a procession of figures approaching a deity in a structure with further persons on the roof. The provenances of the objects suggest that the Ritual may have taken place in a successor of the Eye Temple, and the rarity of the scene elsewhere in Syria supports the idea that the scene refers specifically to the deity of Brak. A few seals from Mari, and a rather larger series of sherd impressions from EB III Palestine, which may in turn be related to the sherd impressions from Ebla and Hama

showing rows of humans, may depict a similar ritual. Although no precursor to this ritual can be found in the glyptic of the earlier third millennium, it may have existed in a form not depicted in art over much of Syria, to be expressed in different stylistic contexts in various places in EB III when the expansion of urban institutions made it necessary to adapt ancient traditions to modern circumstances (cf. Porada 1992, 466).

1.5 Chuera Style

The earliest style showing the use of Early Dynastic concepts in a Syrian manner is the Chuera Style, which may be dated to the ED IIB period on the basis of glyptic and ceramic evidence from the Kleiner Antentempel West-Erweiterung at Tell Chuera and stratum IIId at Tell Leilan. These seals usually show either banquet scenes, rendered in a linear style with barred stools and harps, clearly derived from southern models, or else rows of animals stylised in a particular way, often associated with large rosettes or scorpions, or a man with raised arms. Fish, birds and small wedges occur as filling symbols. This iconography used to be considered characteristic of ED I, but the sherd impressions from Ebla and Hama now show that it belongs to EB III in the west, continuing a tradition which can be traced in the cylinders back to EB I (see above). The unity of the two groups is demonstrated by the Chuera impression Moortgat-Correns 1988a, 15 fig. 2, which combines the animal with the banquet: both sources, western Syria and southern Mesopotamia, should be considered integral to the genesis of the style. Some material from Brak (471-477) may represent continuations of the Chuera Style, but apart from a possible influence on the Brak Style, in the harpist and hatched bands, the Chuera Style may have been short-lived⁸.

1.6 Brak Style

ED glyptic became very common in Syria in the ED III period, mainly in the form of contest scenes with ordinary engraving, as discussed above, and also in styles which are closely related to them. These stress the hatching of the bodies of animals and, especially in the west, have special features including a large dagger which indicate a certain hybridisation with the Syrian Animals Style. At Tell Brak, this "big dagger" series is not attested, but there are many seals of the former type, some of them of marked provincial character (143, 144).

Tell Brak is the only major source of seals in the Brak Style, which combines an "ED IIIA" repertory of motives with local principles of composition featuring especially detached heads and geometric bands. The stratification of Brak suggests that it flourished in the late ED and early Akkadian periods, though it never shows any trace of Akkadian or native Syrian influence. Its rarity at Mari and Chuera indicates that it was probably confined to the Khabur region where the other important sources of glyptic (Leilan, Mozan) have not yet yielded significant published deposits of this period. The derivation from ED IIIA suggests that it may have originated at that time; but this is not necessary as "ED IIIA" motives continued in use until the end of the period. It is not likely to have existed earlier.

A second type of Brak Style seal is known mainly from seals in the art market, though there is an example from Hama. Here the designs are more elaborate with more fine detail, and the geometric bands do not have line borders. This type does not occur at Brak and I cannot suggest where it was made.

Brak Style seals normally show banquets, often with a harpist, or rows of detached motives; animals, often with an eagle or Imdugud bird are common, contests rather less so. Composition is normally by addition, not by integration of elements. This picture, which suggests a degeneration of ED style, copying the elements without knowledge of their proper syntax, is interestingly denied by the presence of "special scenes", including the chariot scene, the boat-god, the bird-demon and even inscriptions, which we saw are missing from the ordinary ED glyptic of Syria, except at Mari. The "Syrian Ritual", on the other hand, does not occur in the Brak Style. The functional evidence from Tell Brak, showing the invention of a largely anepigraphic system of accounting using dockets impressed with ED style seals in ED III, later used in a much elaborated form mainly with the Brak Style, confirms that the style was used in a particular sector of elite activity.

Something similar can be suggested for the contemporary Ebla Style which was used on seal-impressions in Palace G. Unlike the Brak Style the scenes may be related to the Syrian Ritual series. Hatched bands and detached heads are probably derived from the Brak Style, but they are confined to secondary positions and the main scene is composed according to the model of the southern ED IIIB contest frieze. So where the Brak Style used southern subjects with a Syrian composition, the Ebla Style has a Syrian subject in a southern composition. The Ebla Style is not known anywhere else in Syria, though 168, which may have originally come from Leilan, is comparable.

8 496, 498-502, 514, 515 and 517 demonstrate the importance of the Chuera Style at Brak. The lack of a convincing source stratum for them may be because they are earlier than the earliest dated assemblage, cf. p. 172.

1.7 Akkadian period

Akkadian seals are not as common in the north as ED ones. The contest scenes are mainly of Early Akkadian type and nearly all of them come from Assyria. Tell Brak is the only Syrian site with an important collection of early Akkadian contests. Nonetheless Akkadian seals of other kinds are commonly found along the Euphrates as far west as Tell Selenkahiya, and they probably date throughout the Akkadian period. A few cases found still further west may be strays.

Tell Brak has a major series of Akkadian designs, both actual seals and impressions. Many of the seals are of the best quality and the material includes impressions belonging to two provincial governors (317, 318) and two servants of Naram-Sin (319, 320). Together with the Palace of that monarch this material leaves no doubt that Brak was fully integrated into the Late Akkadian state administration.

The same range of Akkadian scenes is attested at Brak and at the other sites in Syria, except that contest scenes are more important at Brak. No trace of local Syrian adaptation can be isolated, but the material covers almost the whole range of subjects that is known from southern sites, except for a few scenes such as the snake-god which are especially typical of the Diyala region and eastern Mesopotamia. This suggests that contact with the south ran straight down the Euphrates to northern Babylonia, in the same way that was suggested for the ED I period; despite this, however, there is also evidence for links with the south-east, certainly in the Provincial Elamite seals which are also known at Assur, the Diyala region and at Susa (562-565), and perhaps also in design 370 and in the seal of the governor of Gasur, 317.

1.8 Ur III period

The end of the third millennium is a period difficult to understand in Syria. Except at Mari, direct chronological links do not exist, and it could be maintained that much of the country was not settled at that time. At Tell Brak, the stratification makes it clear that the city continued to be occupied with undiminished size until the end of the millennium, when it became drastically reduced, yet with one possible exception (401) no glyptic of Ur III type has been found. The seal of Talpuš-atili, apparently a local Hurrian ruler of Nagar (316) is in a classic Late Akkadian style, unlike the other early Hurrian royal seals which are related to the Ur III glyptic⁹. Ur III type seals have a quite different distribution from the Akkadian ones, which were widely distributed up the Euphrates. They are found only at Assur, Mari, Kültepe and Byblos, which were the very sites which mediated international trade in the Middle Bronze Age. This suggests either that the Ur III seals were transported to those cities later when that trade was being conducted, or that the trade originated in the third millennium. Without seal-impressions *in situ* one cannot decide between these two solutions. Only at Mari in the shakkannakku glyptic do we have a Syrian seal style which really seems to belong to this time, if Durand's chronology is correct. The fact that impressions in this style have also been found at Assur and Kültepe may support the idea that these trading links already existed in the Ur III period.

What then was happening in the rest of Syria? Direct evidence tells us nothing. Brak, which has the most convincing occupation of the period, has nothing new in glyptic to correspond to it. We are left with the tenuous links which can be established between the EB glyptic of the Akkadian period and the earliest Old Syrian glyptic of the beginning of the second millennium (see pp. 147-148).

2. Seals and civilisation

The roots of Near Eastern civilisation lie long before the Uruk period, but the developments of the Late Uruk period represent a new degree of social order and complexity, illustrated most convincingly by the massive building programmes of Eanna IV and of Habuba Kabira, and by the invention of writing. Without much better evidence on the Middle Uruk period it is idle to speculate on the exact course of events, but some of the innovations of the Uruk period were present in Syria as early as they are presently known to have existed in the south. Most important of all is perhaps the concept of a central political authority. Although it is not fashionable to think of Uruk culture in these terms¹⁰ it does show the hallmarks of a single monarchy. The extraordinary uniformity of Uruk culture over very long distances (Algaze 1993, 80) is real evidence for political unity: a "trading empire" with several centres, as advocated by Algaze (1993, 115) could not account for it, as the merchants would either adapt to local conditions, as the

9 But cf. the Akkadian seal FI 642, discussed by Lambert 1987b. See now the important Late Akkadian glyptic of the Hurrian rulers of Tell Mozan, Buccellati and Kelly-Buccellati 1995. I am indebted to Dominique Collon for this reference.

10 Algaze 1993, 115; Amiet 1979, 198 considers such an idea "unthinkable".

Assyrians did in Cappadocia in the Middle Bronze Age, or would project the different cultures of their home cities. In some of the outer Uruk settlements the mechanisms proposed by Algaze¹¹ may indeed be appropriate, but not in the two best known regional centres, Habuba Kabira and Susa. The Uruk system also had a single capital of "extraordinary importance"¹², namely Uruk itself, where architecture and artefacts unparalleled in scale and type were found. Of course similar material may occur elsewhere in unexplored sites, but comparative data does exist for the size of the site. The absence of writing and major sculpture from the other excavated Uruk sites, especially from Habuba Kabira where the plan of the site is an eloquent witness to central state enterprise (Algaze 1993, 117), is good evidence that Uruk was not just larger than the other sites, but was structurally different from them.

If such cultural unity implies political unity, then political unity in turn implies military power. An expensive investment like Habuba Kabira could not rationally have been made without adequate supporting military force – as indeed the early European trading empires demonstrate. If force were not available, then the result would be more like the Cappadocian colonies which were restricted to a particular quarter of a native city¹³. This is not to deny the need to obtain some local consent (Algaze 1993, 115), but the town wall of Habuba Kabira shows that the colonists did not lack means of defence.

Another argument for the significance of military power is provided by the relative sophistication of the existing native cultures, which had possessed small towns, social stratification and some architectural elaboration since the Ubaid period (cf. Meyer 1992, 255). Such cultures would not obligingly remove themselves before the intruders, and indeed the Middle Uruk material in Syria shows that there were relations with the south over a long period of time. Yet at Susa the local culture was suppressed outright (Algaze 1993, 11) and in Syria it was possible to found a new settlement on virgin soil. Both of these events speak for the existence of military force. Yet it is only in the cylinder seals that we have direct evidence for warfare (FI 742, 746, 748). FI 743 (Susa 695) from Susa is the most important seal design. It is engraved in the best modelled Uruk style and shows a battle scene dominated by the Uruk "priest-king", a monarchical figure who occurs in prominent locations in ritual, military and hunting contexts¹⁴. On the right is a horned building on a platform which probably represents a temple. It would be hard to interpret this scene other than as an expression of the conjunction of political and ritual power which was always characteristic of Mesopotamian monarchs. Algaze (1993, 115) suggests that this pictorial evidence for warfare shows that the Uruk cities were independent and at war with one another, but it seems to me more likely that a single state was at war with its neighbours outside Mesopotamia. War is a catalyst of political change and it is questionable whether a powerful armed state could have extended its power into distant regions if its nearest neighbours were independent, and even more questionable whether such independence would have been tolerated. The co-existence of culturally advanced cities is most likely when all are threatened by a powerful outsider¹⁵.

The Isin-Larsa period cities seem to be an obvious exception to the suggestions I am making here. They were culturally but not politically unified, yet they engaged in long distance trade. We should note however that their ideology supported a single ruler, as is illustrated by the Sumerian King List, and that attempts were made from time to time to establish one, which were eventually successful. This internal conflict may account for their failure to project their rule outside Babylonia, and thus for a period of unusual stylistic diversity in regions outside Mesopotamia such as Syria¹⁶.

If these arguments for a large Uruk state, with a single capital where special state functions took place, a single ruler with all the trappings of monarchy, and a very wide territory, partly established and defended by military force, which was the arena for expensive state investments, are convincing, then we have to think in terms of a sophisticated bureaucracy to administer it. At various levels – economic, ritual, military – the state must have had to move people and goods about, probably on a large scale. This would justify the existence of the state and provide it with the surplus it would need to support specialists such as scribes and artists. The evidence for accountancy devices such as tokens and sealed bullae¹⁷ suggests that this bureaucracy was developed over a long period of time, but it is reasonable to think that the Late Uruk period saw major innovations in this area as it did in others.

The most important of these was writing, but there were innovations also in glyptic. We have seen that the Late Uruk period saw the creation of the schematic class of Uruk cylinders which probably had a rather different function

11 Cf. the criticisms of Steinkeller 1993, 109-115.

12 Adams 1981, 72: n.b. he considers Uruk only to be "one of the apexes of a (probably fairly diffuse) politicoreligious system"; as with the authors quoted above, this resistance to the idea of a single centre seems to be rooted largely in the extreme antiquity of the Uruk culture, rather than particular evidence.

13 This model may be more appropriate further north at sites such as Hacinebi Tepe (A. Lupton, lecture given in Oxford, May 1995).

14 Collon 1987, 15. As Amiet (1980, 39) says, the rarity of this figure at Susa could just be an accident of excavation. Weingarten in Ferioli 1994, 205 suggests that the figure is a type and therefore does not imply the presence of a single ruler.

15 Cf. for example the relationship of mediaeval Italy with the Holy Roman Empire, or of classical Greece with Persia.

16 Although some signs of cultural diversity existed then within Babylonia, such as the Sippar seal style, there is not enough evidence to be certain that this was not also true in the Uruk period.

17 Reviewed by Pittman 1994, chap. II.

from the good quality Uruk glyptic which had originated earlier, because the individual designs were less differentiated, and because there is little evidence that they were actually used for sealing. This distinction between fine quality and schematic seals is likely to have corresponded to some structural division in the administration. These divisions could have been vertical, i.e. between levels in the hierarchy, or horizontal, i.e. between different sectors of the administration.

Nissen (1977, 19-20) suggested that the fine seals were used by individuals and that the schematic seals were used by institutions, while Collon¹⁸ proposed that the fine seals were used by institutions controlling male activities while the schematic seals were used for female institutions. Dittmann (1986) greatly expanded Brandes' ideas, proposing an elaborate hierarchy of administrative departments, on the basis of the co-occurrence of fine seals with different subjects on the same bullae or tablets. There are difficulties with the Dittmann/Brandes approach because of the assumption that the scene type is a direct depiction of the activity in question, e.g. battle scenes were used in the army or booty administration. Such direct correspondences do not exist in later times when symbolism tends to be more complex so I would be reluctant to propose it here¹⁹. The basic outlook of these theories is attractive however, and it may be proposed that the schematic seals were made to be worn more as a badge of authority than for making seal-impressions. This is a compromise between Nissen's idea and Collon's, following Nissen's suggestion that the difference is hierarchical and that the holders of the schematic seals were probably at a lower level of the hierarchy than the owners of the fine seals, and Collon's proposal that the schematic seals represented a particular sector or sectors of the economy. On this model, the fine seals were used by the central literate bureaucracy to communicate with themselves, eventually in conjunction with writing, while the schematic seals were used by persons who were intermediary between the bureaucracy and the administered population. Possession of a seal, whose manufacture was controlled by the state (thus accounting for the stylistic uniformity of the Uruk seals), would register these persons with the higher officials, and at the same time symbolise and constitute their authority over the people. In a "colony" such as Habuba Kabira only schematic seals are excavated, though there are impressions of fine seals. This might mean either that only lower-status officials were present, or that higher-status officials were there too, but they took care to remove their seals when the site was abandoned²⁰.

So far there is some evidence to support this suggestion, in the different patterns of usage and loss of the seals. To go further and suggest that the different types of schematic seal represent different sectors of the administered economy would be to speculate, since there are no known differences between their distributions. For example, the "squatting ladies" could represent, as Collon proposed, female industries such as textile working, the rows of animals could represent animal herding and the geometric seals (for a reason which I shall give below) could represent trade. All of these sectors are likely to have been under direct state control in the Late Uruk period, as it is hard to see how such widespread cultural uniformity could otherwise have happened.

If these suggestions about the nature of the Late Uruk culture are true, that it was a single and highly structured administrative system with a very strong political and ritual ideology, then aspects of the ideology may have survived after the fall of the political state. These ideas may not have just disappeared, but may have been a vital source of inspiration in EB I, with different effects in different regions. Three main regions can be distinguished at that time: southern Mesopotamia, Elam, and Syria. Each showed a different response to the problem of a vanished authority.

In southern Mesopotamia, survey data²¹ suggests widespread disruption at the beginning of the Jemdet Nasr period, at the same time as the loss of the foreign connections of the Uruk "empire". At the end of the Jemdet Nasr period, there are signs of prosperity both at the fringes of Babylonia, where rural settlement increased, and at the centre, where the population seems to have moved from the villages to the towns (Postgate 1986). In ED I, "Uruk, already the largest center of its time, underwent a further phase of impressive growth" (Adams 1981, 82), and the cities of Akkad may also have expanded, though the evidence is less clear (Adams 1981, 88). These processes could be accounted for by a shattering of central political authority at the end of the Uruk period, followed by the rise of the cities as independent, smaller states, able to dominate their hinterlands and to concentrate significant wealth (cf. Adams 1981, 87), but not to undertake the ambitious foreign adventures of the Uruk period. As Adams points out (1981, 88) extended rural settlement, which is more characteristic of the Jemdet Nasr period than of ED I, is normally a reflection of peaceful times. Therefore although central authority may have collapsed in the Jemdet Nasr period, the cities may have governed their relations by diplomatic means, and this may be the significance of the "League of Cities" (R. Matthews 1993). Such a political situation would be inherently unstable and in the later part of ED I, after the time of the ED I "city seals" (R. Matthews 1993, 40), the system of states in constant military competition, which we see in the documents of the later Early Dynastic period, may have taken over.

18 1987, 16, drawing on ideas of Brandes that the different subjects of the fine seals represent different branches of the administration.

19 E.g. the "Sargonic royal seal" (Zettler 1977) seems to have had much the same function as the Ur III seals discussed by Winter 1987; but (perhaps deliberately) the Ur III state chose a quite different scene.

20 Sørensen 1986, 23 suggests how the distributions of seal types might support a difference between the administrative functions of Habuba Kabira and Jebel Aruda.

21 NB the caution about the political interpretation of survey data expressed by Liverani 1993, 7-8.

This slow response to the end of the Uruk system, with a final working out of the implications of the collapse of central authority probably after some centuries, may indicate a conservative ideology able to ensure social stability and continuity in changing conditions. This is borne out by the survival of writing and by the glyptic, which continued, with some adaptations, the styles of the Late Uruk period. The archaic impressions of Ur continue to depict an essentially Uruk view of the world, and in the Diyala region too a style related to fine Uruk glyptic was developed²². The existence of cultural regionalism, as shown by the difference between the Ur and Diyala glyptic, supports the idea of independent city states.

If this explanation is correct, we might expect some changes in the glyptic to reflect the loss of a whole level in the state hierarchy. I have suggested that fine glyptic adapted from the Uruk tradition continued to be made to represent the central city institutions. The survival of the schematic glyptic is more questionable, because the large quantities of "Jemdet Nasr" glyptic in later contexts in the Diyala region makes assessment difficult. Are they contemporary or, as is generally supposed, antiques? One possible explanation is that the economic basis which I suggested for their existence, as markers of authority which were not meant to be used for rolling, became obsolete, as the method of control of the relevant sectors of the administration reverted to more personal or kin-based, and less official, mechanisms. The schematic seals might then have remained in circulation for some time as ritual objects before being deposited in temples when their original purpose had been forgotten. The prominence of such seals at Jemdet Nasr itself may indicate that their function survived the fall of the Uruk state, perhaps disappearing in ED I. Nissen suggested (1977, 21) that the Brocade Style of the Diyala region may represent a continuation of the schematic type, and certainly a derivation from the cut style animal row seals would make good sense (Pittman 1994, 66). This may then represent an attempt to keep the old system going in the Diyala cities in ED I, but without a significant corpus of seal-impressions from there this suggestion cannot be further investigated.

In later ED I the Early Dynastic contest frieze was developed, as a new compositional principle which at first used figures similar to those found in the earlier ED I seals, but which soon adapted strongly under the influence of quite different design requirements. As Pittman (1994, 264) pointed out, this probably implies a major change in the way in which seal designs were integrated into the administrative system. The wider range of scene types of Uruk glyptic would be more suitable for an administration divided into separate sectors than the contest frieze, which easily generates a wide range of different designs without obviously different meaning, and so supplies no more than individual recognisability and stylistic conformity.

Southern Mesopotamia shows a conservative development which was slow to change and which long retained remnant features of the Uruk system after that system had disappeared. Elam on the other hand may illustrate an attempt to reconstruct the administration on stronger lines. Here we see the imperial outposts, the writing, and two main seal styles, the fine Proto-Elamite and the schematic Fired Steatite, in what looks like conscious imitation of Uruk forms. The system was made more cohesive by the use of writing in the provinces and by the appearance of writing signs on the fine quality seals, both innovations compared to the Uruk period (cf. Amiet 1979, 199). At the same time there is conscious opposition to the older model, especially in the shape of the fired steatite cylinder, long, thin and made of an artificially transformed material, rather than short, squat and made of stone as in the schematic Uruk seals. Unlike the south, whose seal styles are not found in other regions²³, the fired steatite style was disseminated into two regions whose pottery is different from that of Elam, and which do not show any sign of being under Elamite political control. Both regions, the Hamrin and the Ninevite V area, to some extent adopted the new style into their own culture, the Hamrin region in what was perhaps some local system of redistribution (see pp. 85-86), and the Ninevite V area by adapting the subjects of the designs. In these regions, therefore, the ideological inspiration, which in the south seems to have looked back to Uruk models, was usurped by Elam. In both regions the geometric styles were now commonly used to make seal-impressions, which suggests that the distinction between possession and use of a seal, as in the Late Uruk period, no longer applied.

Trade is the most likely explanation for the use of seal styles across political frontiers (and probably also ethnic ones, to judge from the pottery assemblages). Therefore it is likely that the fired steatite style was used to regulate trade, and the signs of state enterprise in its creation (Pittman 1994) may reflect a conscious decision by the founders of the Proto-Elamite state to regulate trade²⁴. I have suggested (p. 83) that the hatched group of fired steatite style seals was derived from the Uruk geometric seals, since it uses the same basic elements and principles of composition, though the method of hatching is, probably consciously, different. Therefore it would make sense if the Uruk geometric seals were also used for the regulation of trade, though there is no clear evidence from that period to support this idea. The function of the Uruk geometric seals may have been less to secure trade goods in their containers, which would have been sealed by fine Uruk seals (like most known Uruk seal-impressions), but to mark the

22 Diyala 307, 462, 797-8, 831, 837, etc.

23 The ED I glyptic of Tell Brak belongs to the beginning of the contest frieze in the late ED I period.

24 Cf. the widespread use of "Made in x" labels on traded goods at a time when it was required by British government regulation.

authority of officials appointed to oversee some aspect of the trade. For example, the goods might be baled and sealed at the point of despatch by a resident official with a fine seal, and then carried by commercial travellers whose authority to take the goods through stations on the way would be marked by their possession of a geometric seal²⁵.

I have discussed the situations in Sumer and Elam at some length because the evidence is better known there and it is possible to make suggestions about the Late Uruk system and reactions to its fall which are useful in trying to understand the situation in the less complex societies of Syria.

Most of the glyptic of the Ninevite V area is geometric, nearly all of it either directly continuing the patterns of the Uruk geometric seals, or imitating more or less accurately the fired steatite style. Schwartz (1994, 157-8, 162) has suggested that the Ninevite V seals were used for the administration of grain stores, because they have been found where structures interpreted as granaries have been excavated at Telul eth-Thalathat, Tell Atij and Tell Raqa'i. However cylinder seals are not necessarily markers of political administration: they could be used by merchants for private trade purposes. Administration can only be inferred where there is functional evidence for the use of symbolic accountancy systems such as the Uruk sealed balls or the Akkadian dockets. The sealing of containers need mean no more than that the owner of a container wished to secure the contents against tampering, and this is true whether the container is a pot or a room. I know of no evidence for complex sealing systems in the Ninevite V period. The fact that seals have sometimes been found near a "granary" does not mean anything: one or two seals are likely to appear in any sounding of this period. I would accept Schwartz' argument only if there were evidence for the seal-impressions of particular kinds *in situ*, as at Arslantepe (Ferioli and Fiandra 1994). The Ninevite V culture was, so far as we presently know, essentially non-literate, non-urban and without political or administrative institutions more advanced than had existed in the Late Ubaid period²⁶. I do agree with Schwartz' (1994, 165) argument that the foreign iconography of the seals imparted ideological charisma, in this case apparently deriving both from the Uruk state and from the Elamite.

In western Syria, we see a rather different pattern²⁷. Here Uruk traits did not just survive: they were adapted, and the adaptation began before the end of the Uruk period. The designs of the "Aleppo Series" cover the full range of the Late Uruk schematic seals, including "squatting ladies", animal rows and geometric patterns. Since these seals are not reported from the Uruk sites, and since the strongest characteristic of Uruk culture is its uniformity, it seems more probable that these seals were made for the local people than for the inhabitants of the Uruk settlements. Here the function of the schematic seals in the Uruk system is important. If, as I suggested, these seals were used as markers of authority for junior officials who controlled particular sectors of the economy, then they would be obvious markers of Uruk power to outsiders. The Aleppo seals may represent a deliberate attempt to extend the Uruk system to neighbouring native towns outside the area of Uruk rule. Either the seals were made in such towns to emulate what they could perceive of the structure of Uruk government, or they were made by the Uruk seal-cutters to distribute to authorised agents living in those towns. The perfect imitation of the designs, combined with the change of the shape of the seal, which suggests deliberate symbolic opposition²⁸, may make the latter possibility more likely.

In Sumer the full range of schematic types may have originally survived the fall of the Uruk state, but all of them had gone out of use probably before the end of ED I, while in Elam and the Ninevite V area only the geometric seals survived. I suggested that this was because Sumer tried to retain the whole Uruk system within each city, whereas Elam created a new reformed system which preserved the schematic type only for the sector of the administration which used geometric designs, probably trade. The Aleppo Series seals may reflect an attempt to export the entire system of lower-level control.

In the west in EB I the Aleppo type seals continued to be made. The "squatting ladies" designs disappeared, and the animal rows and geometric patterns were adapted, apparently partly under the influence of fired steatite glyptic, to produce a situation similar to that of the archaic stamp seals: figurative designs mainly showing animals, and geometric designs. I suggest that by this time no complex systems of seal use existed in the west, and seals were just being copied from whatever sources were available. The ancient stamp seal tradition now defined the proper subjects of scenes and even some of the principles of composition, like tête-bêche animals, but the form of the seal as a cylinder was retained from the Uruk inheritance. The difference between western and eastern Syria thus lay essentially in their attitude to the stamp seals. Both had had vigorous stamp seal traditions before the Uruk culture came, but Uruk influence was stronger and more lasting in the east and it succeeded in eliminating the stamp seal tradition

25 The existence of Habuba Kabira is a strong evidence for the central regulation of trade in the Uruk period: the site has no other credible purpose (Algaze 1993, 61-2), and the state which found the resources for such a large investment would have wished to control the outcome.

26 M. Roaf, pers. comm.; cf. Algaze 1993, 107, Weiss in Schwartz 1988, xix, Sørensen 1986, 34. Schwartz agrees that it was less complex than the Uruk state, but suggests that it was more complex than the cultures which preceded Uruk (1994, 164). I do not see any more complexity in the architecture, glyptic use, or graves (to take three examples) than in the Late Ubaid period; but further evidence could change this picture.

27 For another view of the difference between west and east Syria at this time, cf. Schwartz 1994, 164.

28 The difference between axial boring and loop boring would not be easy to see, so if a symbolic opposition existed it is more likely to have been visible in the mounting.

entirely²⁹. When the Uruk system fell, the people retained the use of cylinder seals, but they were only aware of the geometric type of design and they used that almost exclusively for their own seals, whether they continued the Uruk forms or adopted the fired steatite patterns.

The situation in the west was different. There Uruk culture had not been so strong, with direct rule probably not extending west of the Euphrates, and the Aleppo Series shows that the local people gained a wider knowledge of the range of schematic Uruk glyptic. As in the east, Uruk influence was enough to replace the stamps with cylinders; unlike in the east, an essentially local set of scene types survived. A number of experiments mixing schematic Uruk and stamp seal scenes in different ways were made, but in the end the main scene which survived into EB III was the essentially native one of the man with raised arms and the row of animals. The Aleppo school dissolved into a range of degraded designs and seems to have no direct successor in EB II.

Another tradition in the west was the coastal use of cylinders on potsherds, which began as early as EB I. Unlike the contemporary sealed sherds of the Hamrin region, this practice may have related to the trade of commodities (see Mazzoni 1984). The containers may have been traded³⁰, which implies that the system was recognised over a wide area. If Mazzoni's (1984, 32-3) suggestion that the seals represent a kind of product labelling is correct, this implies a degree of economic integration, but not political development. Such integration would not be surprising, given the evidence for contact with Egypt along the coast throughout the Early Bronze Age (Stager 1992, 40), probably reaching at least as far north as Byblos at most times and sometimes much further³¹. Apart from the use of cylinders, it could be maintained that this glyptic was at first derived only from the stamp seal traditions, both in the scenes of animal rows and in the practice of sealing sherds, which existed using geometric stamps in the archaic period at Byblos. The flowering of the sherd impressions at Byblos in EB II does, however, seem to reflect Uruk stylistic influences, and this may be the result of trade with Mesopotamia which may be faintly reflected by the few designs which I have called the "EB narrative group". This group may have blended ideas from the western traditions with concepts derived from the fine Uruk seals: as such, it is the only line of derivation in the north and west from the fine Uruk glyptic.

Towards the end of EB II therefore a symmetrical picture can be proposed for Syrian seal practices. In most of Syria, seals were used only for the private regulation of trade, either (in the east) primarily to secure containers or (in the west) primarily to label products. No evidence supports the idea that seals were used for political purposes, though they were socially prestigious and could be used as amulets and as grave goods (Schwartz 1994, 162). The two regions were each conscious of being at the end of a trade route, centred respectively in Egypt in the west, and in Elam in the east. The artistic influence of Egypt on the west was however minimal, where the local tradition of stamp seals was the preferred source of inspiration; in the east, the fired steatite style was a major source of patterns and the essential character of seals bearing geometric designs was derived from the Uruk period. Both regions alike, however, accepted the cylinder as the only type of seal.

Towards the end of EB II the changes described by Weiss (1990a) resulted in a new situation of city states all over Syria. At present, Tell Leilan is the only site for which extensive information on this transition is available, the main levels at other likely centres of the same phenomenon such as Mari, Brak, Chuera, Ebla and Hama being later. Tell Leilan demonstrates that the state formation was conducted by the native people, as is shown by the overlap between Ninevite V and stoneware pottery and the presence of a Ninevite V kiln in the new outer town (Weiss 1990a, 208). With the possible exception of writing, all the signs of urban civilisation probably existed in the early phase of this "Leilan IIIc" culture: cities, public architecture, sculpture (Chuera) and the use of seals for administration, probably indicated by the hoards of seal-impressions from Leilan and Chuera. This is not yet certain, as the impressions seem to consist of peg and jar sealings, which had existed throughout the Ninevite V period, and the increased quantity could be an accident of excavation.

The ideological aspects of this change are interesting. Schwartz³² has discussed the circumstances under which foreign elite symbols may be adopted, and concluded that although the purpose of such adoption is certainly to emulate the ideological advantages thought to be possessed by the foreign culture, this does not imply foreign political or economic control: indeed the example of Assyria and Babylonia shows that the reverse can be true. It does, however, imply a certain consciousness of cultural inferiority. As we have seen, western Syria showed more persistence in the maintenance of its own traditions than eastern Syria in EB I-II, and we need not suppose that this inferiority was felt there until the time when cuneiform was translated to Ebla, perhaps as late as ED IIIB. The Ninevite V area, on the other hand, dropped its own traditions and adopted a new culture. Unlike Mari, however, this culture was not taken wholesale from the south, with southern pottery and glyptic. It was created anew, relying on

29 This conclusion is surprising given the strong stamp seal traditions of Brak and Tepe Gawra; but we do not see stamps or styles derived from stamps in the east in EB I-II.

30 The same seal at Megiddo and En Shadud in EB I: FI 65; at Hama and Ebla in EB III: Mazzoni 1984, 28.

31 Saghieh 1983, 104f.; cf. the Tarsus pitcher from Egypt, Mellink 1965, 111.

32 1994, 165; cf. Weiss 1990b, 395.

technical innovations in pottery and a mixture of foreign influences in art. Only in the sculpture of Chuera do we see what looks like direct imitation of southern style, perhaps because there were no Syrian sculptural traditions on which to draw. The glyptic of the Chuera Style, however, gives us a different picture. This style includes southern and western influences in equal measure: the Leilan IIIId impressions are not ignorant provincial imitations of southern models, but belong to a new hybrid style. This indication that western models were taken as seriously as southern ones in this style is important, as it may imply that state formation had already taken place in the west some time before the palace at Ebla which is presently our best evidence for it. Future excavations will no doubt bear on this question³³.

The Chuera Style therefore indicates that state formation occurred in eastern Syria not through the imposition of a foreign model, but through indigenous processes which, admittedly conscious of cultural inferiority, selected what was required from at least two foreign sources. If I am right in suggesting that writing was still absent from Syria (except in a few ED II seal inscriptions which may have been imported) – and a negative is hard to prove – this may explain why the new culture did not subsequently retain its independence. For the glyptic shows that in ED III foreign influences were once again adopted, both in the widespread use of provincial Early Dynastic contest seals and in the Brak Style.

Nonetheless, although the western native tradition did not form an integral part of the eastern Syrian ED III³⁴, with rare exceptions³⁵, the Brak Style shows that Syria did not become artistically provincial. Although all its elements are derived from the south, its Syrian principles of composition and above all its use of the ED "special scenes", which are otherwise missing from Syrian ED (except at Mari), as described above (p. 190), show that like the Chuera Style it was created locally for local purposes. Now for the first time since the Uruk period we have evidence for the use of complex administration systems, in the sealed dockets which were used at Brak in the late ED and early Akkadian periods. Two stages of the development of these dockets can be distinguished. In the first, the provincial ED III style was used on simple dockets. Later the system was much elaborated and the Brak Style was used in it. The Brak Style had already been invented in CH level 6 which contained the dockets of the earlier type. Therefore the dockets and the seal style were originally invented for different reasons and only later brought together in a complex system of administration.

The evidence for the origin of writing in eastern Syria, before the Akkadian period, remains equivocal. A small number of objects, including one of the earlier Brak dockets, which bear one or two signs are mentioned by Weiss (1985b, 329). The new evidence from Brak shows that the Chagar Bazar bulla (219) should now be dated to the Akkadian period. Only at Mari and Ebla is there a range of inscriptions³⁶, suggesting that the other ED III Syrian sites were largely illiterate. This is especially likely at Chuera where inscriptions have not been found in spite of extensive excavation. Mari is always a special case in Syria, with its exceptionally close links to the south, and there were certainly tablets there at the end of ED III (Charpin 1987, 1990), but it is questionable whether the ED II seal inscriptions (Mari Ishtar, pl. LXV) really mean that cuneiform was used at the site then. The seals are very close to the Fara glyptic in style and could be imports. The same goes for most of the inscribed ED III seals from Brak and elsewhere. The date of the introduction of cuneiform to Ebla is controversial, but the archive may represent only a short period of time³⁷ and could have been restricted in its use to the Palace (Postgate 1988, 113-4). This might yield a situation analogous to Uruk IV, where writing was used for some central purposes in the capital, but was not in general use throughout the administration. Archaeological evidence supports this interpretation. The Ebla glyptic style, attested in seal-impressions from the floor of the palace, is clearly derived from the ED IIIB of the south, and Mazzoni (1993) has shown that the architecture of the palace also suggests a late increase in its complexity.

Therefore the widespread naturalisation of the ED III style in Syria is not necessarily to be equated with the introduction of cuneiform, which may rather belong to the end of the period. In that case Syrian civilisation existed for some time without writing, perhaps as long as 200 years³⁸. This is surprising, but there is some evidence for the existence of experiments analogous to writing. First, several sites have produced tablet-like objects which may have been used for informal notations³⁹. Secondly, a few seals of the Brak Style show evidence for a "hieroglyphic" adaptation of cuneiform⁴⁰. At Brak, this kind of writing is not known to have existed before the Akkadian period

33 Thissen 1989, 207 suggests that advanced pottery techniques started earlier in the Ebla-Hama region than in inland Syria east of the Euphrates.

34 Designs in western style like 484-5, 558-560 are probably imports.

35 471-476 may represent later continuations of the Chuera Style at Brak.

36 The new tablets from Tell Beidar may bear on this question, cf. Bretschneider et al. 1993, 44-5.

37 Hallo 1992, 150, Michalowski 1988, 272.

38 Cf. Archi 1987, 134.

39 Tell Atij: Fortin 1990, 240 fig. 20; Tell Raqa'i: Curvers and Schwartz 1990, 7; Tell Bderi: Maul 1992, 11, Taf. 8:4-5; Mari: Syria 42 1965, 12 fig. 10; Tell Bi'a: Krebernik 1990, 86-7 nos. 22, 23; Brak: D. Oates 1985, pl. XXXII (from Akkadian fill); Chuera: Moortgat-Correns, 1972, Taf. 36b. Cf. Algaze 1993, 136 n. 7; Fiandra in Ferioli and Fiandra 1994, 164, 170. These objects may belong to several periods and are of a kind probably not reported in the older excavations.

40 See pp. 119-120 and Moortgat-Correns 1994.

(211), but Chuera 1976, 29 Abb. 12 comes from the Kleiner Antentempel West-Erweiterung and should therefore belong to ED IIB or the beginning of ED III. This material is insufficient to demonstrate the existence of a local method of notation in Syria in ED III, but it may show that experiments of that kind were occasionally made, perhaps independently in several places. Inscribed seals or other contact with the south may have aroused curiosity and imitation, but although the conditions were ripe for the invention of a local script this never happened.

So we see in Early Dynastic Syria several different responses to the cultural influence of the south. First in the Chuera Style the local people invented a seal style which drew equally on southern and on western sources. ED II-type sculpture was also made at Chuera, presumably at this time. Then in ED III a provincial version of ED III became universal in Syria, without the "special scenes" which only occurred at Mari. Mari was by now a thoroughly Mesopotamian city with southern sculpture, glyptic and writing, but writing may have been slow to reach the rest of Syria. In ED IIIB at the latest, the local development of a mainly anepigraphic accounting system and a local seal style which did include "special scenes" are attested at Brak, though not at first together. It is possible that experiments in notation systems were also made at this time, though none of them seem to have got very far. Towards the end of ED III, and probably later than the origin of the Brak Style (which does not show ED IIIB traits), a major administrative reform at Ebla was reflected in developments in cuneiform, architecture and glyptic. Probably a little later, and certainly in the Akkadian period, we see a comparable synthesis at Brak, where monumental architecture and a very elaborate accounting system which used its own seal style were associated together. Cuneiform was certainly in use at Brak by that time (D. and J. Oates 1993, 169 figs. 20, 21) but it has not yet been reported in quantity in Main Level contexts. Here the chronology of the strata at Tell Brak becomes vital, because if the SS Main Level belongs to the Late Akkadian period then this system was used in parallel to the Akkadian state system which used cuneiform tablets; whereas if the Main Level is earlier, then the one system replaced the other. In that case, a system of government was practised at Brak in the Early Akkadian period which, while dependent on ideological support from southern concepts, was nonetheless in its structure essentially developed locally. This may be true also for the Ebla Style, which made a different formal and structural synthesis of southern and Syrian traits. Both styles alike show that seal usage in the highest status contexts in Syria at the end of the Early Dynastic period was not confined to imitations of ED glyptic, but that ED elements or syntax were adapted by the local elites for their own purposes.

The picture is thus of local societies which were aware of a cultural inferiority towards the south, perhaps mainly because they lacked writing, and which made a number of separate efforts to make their own syntheses of imported and local traits. These efforts perhaps only succeeded around the time of Sargon, with the material from Brak and Ebla, and failed to establish themselves before they were brought to an end, at least in the east, by the Akkadian conquest.

The Akkadian period is characterised by, on the one hand, much stronger evidence for southern political intrusion into Syria, and on the other, by a weaker cultural impact. Whatever the real extent of Early Dynastic military conflict with the north⁴¹, no inscriptions of known southern rulers have been found in the north except for the Mesannepada bead from Mari (Westenholz 1979, 119), which may well have been part of a diplomatic gift. In the Akkadian period, by contrast, royal inscriptions are known from several sites (Michalowski 1993, 82-84). Inscribed vessels and other objects from Assur, Brak, Tishrit and Mari (Rimush, Manishtusu, Naram-Sin, Shudurul) could, like the Mesannepada bead, represent diplomatic gifts or later booty; the Pir Hussein inscription could be a marker of a military raid; the seal inscriptions naming Naram-Sin from Brak (319, 320) could have been imported; and Naram-Sin's Bassetki statue could perhaps be explained as war booty (- why else would such an obviously metropolitan metal object be taken out into the country?); but the Palace at Brak is secure evidence for direct political control, and so is the reported construction of a temple at Nineveh⁴². It is unfortunate that it is not known whether the Akkadian kings ruled at Mari, since it would be interesting to know whether the lines of authority ran to Brak from the east or the south (cf. Durand 1985, 154-5, 158-9). The Akkadian glyptic at Brak, as shown above (pp. 142-143), relates more to the centre of Babylonia than to its eastern side, but a few pieces (317, 370?, 562-565) do show direct contact with eastern Mesopotamia.

In eastern Syria at least, therefore, there is evidence for the political influence of all the main Akkadian kings, except for Sargon and Sharkalisharri, two kings who are reported to have campaigned in the north. Yet the spread of Akkadian art is less impressive than in the previous period. We have seen that Early Dynastic glyptic is found all over northern Syria, both in "provincial" forms and in a series of derivative styles which followed their own compositional principles. Early Dynastic art became naturalised in Syria and in the east nearly excluded all other traditions. There are important sources of Early Dynastic sculpture at Mari, Assur, Jebel el-Beida and Chuera and fine pieces were made as far west as Ebla. In the Akkadian period we have almost no provincial or derivative glyptic,

41 Which did not necessarily take place on northern soil: Michalowski 1986, 136. The cultural impact of military invasions need not be great, and the meaning of the texts is often doubtful, cf. Liverani 1993, 52-67.

42 See Michalowski 1993. Rimush may even have founded a settlement in the region of Nineveh: Algaze 1986b, 134.

indicating that Akkadian art was always seen as foreign⁴³. Although standard Akkadian glyptic has been found in several places in Syria, there is much less of it than in the previous period, and the sites have a more restricted distribution along the Euphrates, except in the Khabur.

A further anomaly follows the internal history of the Akkadian state. Although the inscriptions indicate that the height of Akkadian influence was reached under Naram-Sin, and this is supported by the glyptic from Brak, the rest of Syria shows a rather different picture. Late Akkadian contest scenes are rare and major architecture and sculpture seems to relate more to the early Akkadian period than to the late. No major building of the late Akkadian period has yet been identified in Syria except at Brak, while there are several major structures which may date to about the time of Sargon, including the Palaces at Ebla, Chuera⁴⁴, Tell Bi'a (Strommenger 1994, 144), and Mari⁴⁵, and the SS building at Brak. The few pieces of Akkadian sculpture from Syria, such as the two objects from Brak⁴⁶ and the material discussed by Orthmann 1985, show no trace of Late Akkadian forms. So it may be proposed that in the early Akkadian period Syria continued as she had done before, borrowing and internalising the latest style from the south, with an increased reception of diplomatic gifts from Akkad. But before the process had advanced very far or had spread out from the royal palaces the cities were destroyed or impoverished by Akkadian campaigns and the tradition of local patronage came to an end. Tell Brak may therefore show a misleading picture, because it did receive a major building programme under Naram-Sin: he would not have been able to do this everywhere.

This suggestion is tentative, since none of these structures and objects has an unequivocal date and some of them may have been made or destroyed before the Akkadian period started. But it can be proposed that Syria reached a height of prosperity during the early Akkadian period before markedly declining in the later Akkadian period, perhaps because of the destruction caused by Akkadian invasions and the establishment of Akkadian outposts like Brak which disrupted communications. One might perhaps compare the slow death of the Iron Age culture in Syria in the eighth century under progressive Assyrian attack. The Assyrian works at Til Barsip did not compensate for the loss of the tradition of Carchemish. Such a picture would better fit the gradual abandonment of sites throughout the Akkadian period than Weiss and Courty's (1993) view of a wealthy and successful late Akkadian state in Syria followed by sudden collapse. Contrary to Weiss' view that "for the first time we've identified abrupt climatic change directly linked to the collapse of a thriving civilization"⁴⁷, there is no compelling evidence for climatic change, and no reason to think the civilization was "thriving". Syrian culture was already in decline in the early Akkadian period, as is shown by the abandonment of some settlements and the end of a flourishing local tradition in art: the Akkadian empire could have either caused or been caused by this decline. The massive investment of Naram-Sin at Brak and perhaps at other sites was, on this view, achieved at the cost of the destruction of the prosperity which Syria had previously achieved by its own efforts.

This picture of political integration achieved at the cost of economic shrinkage may have reached its logical conclusion in the Ur III period. By then, many of the Syrian cities had probably been abandoned and others which remained populous, like Brak, may have lost any vestige of a native tradition of high culture, perhaps because of a nomadic Hurrian intrusion. Almost the only direct evidence for the Hurrians in the Khabur at this time is in a few royal seals and some foundation inscriptions. Ur III glyptic is even less common in the north than Akkadian had been, and is almost restricted to Mari, Byblos, Assur and Kültepe. It is as though these places were now islands in an empty sea. Their contacts would eventually stimulate the wealth and expansion of the Middle Bronze Age, but except at Mari, which may have profited from controlling the western trade of the Ur III state, there is no evidence for general prosperity at this time and the Ur III state probably did not extend west of Assur⁴⁸. Some shadows of Syrian culture remained to influence the earliest styles of the second millennium, but the civilisation of the Early Bronze Age had come to an end.

43 In Iran, by contrast, there was a provincial Akkadian style: Amiet 1979, 201.

44 Palace F, cf. p. 43.

45 The final occupation is Akkadian: Margueron 1990, 390, 394.

46 Oates and Oates 1991, pls. 26, 27; 1993, 160 fig. 6.

47 Quoted by Gibbons 1993, 985.

48 Michalowski 1993, 85.

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List of Abbreviations used in the Bibliography

AAA	Annals of Archaeology and Anthropology, Liverpool
AAAS	Annales Archéologiques Arabes Syriennes
AASOR	Annual of the American Schools of Oriental Research
AfO	Archiv für Orientforschung
AJA	American Journal of Archaeology
An. St.	Anatolian Studies
AOAT	Alter Orient Altes Testament
BaM	Baghdader Mitteilungen
BAR	British Archaeological Reports
BASOR	Bulletin of the American Schools of Archaeological Research
Bib. Mes.	Bibliotheca Mesopotamica
Bi. Or.	Bibliotheca Orientalis
BMQ	British Museum Quarterly
CDAFI	Cahiers de la Délégation Archéologique Française en Iran
Dam. Mitt.	Damaszener Mitteilungen
FNMHAM	Field Museum of Natural History, Anthropology Memoirs
Ist. Mitt.	Istanbuler Mitteilungen
JNES	Journal of Near Eastern Studies
KPP	Keban Project Publications (Ankara, Middle East Technical University)
MARI	Mari, Annales de Recherches Interdisciplinaires
MDOG	Mitteilungen der Deutschen Orient-Gesellschaft
MVS	Münchener Vorderasiatische Studien
OBO	Orbis Biblicus et Orientalis
OIP	Oriental Institute Publications, Chicago
RA	Revue d'Assyriologie et d'archéologie orientale
SAOC	Studies in Ancient Oriental Civilization
SMFOS	Schriften der Max Freiherr von Oppenheim - Stiftung
TAVO	Tübinger Atlas des Vorderen Orients
TTKY	Türk Tarih Kurumu Yayınlarından, Ankara
WVDOG	Wissenschaftliche Veröffentlichungen der Deutschen Orient-Gesellschaft
ZA	Zeitschrift für Assyriologie und vorderasiatische Archäologie

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CATALOGUE

Every cylinder seal design of the third millennium from Tell Brak known to me is included in this book, together with some other material which I have encountered during my research. For the Mallowan material, I have included every seal-impression from his Khabur expeditions which Mallowan lodged in the museums of London, Oxford and Aleppo, except for the Old Babylonian impressions on tablets and objects belonging to the Late Bronze Age (which I have treated elsewhere). This means that apart from the Early Bronze Age, impressions of stamp seals and Middle Bronze and Iron Age designs are included. There are some actual Syrian cylinders here of the Middle Bronze Age and the Iron Age which were collected by Mallowan, but very few of his original stamp seals are included as this would increase the scope of the book too much. From the Oates expedition, the stamp seals and impressions, the cylinders of the fourth millennium, and all of the Late Bronze Age material are also excluded. Within these limits, I have included material which was purchased by Mallowan or excavated by him at sites in eastern Syria other than Tell Brak, including Chagar Bazar. There are also some pieces from the Aleppo Museum for which no provenance now exists, but which are believed there to have been presented by Mallowan, and some seals from the Khabur region which were generously shown to me by Dr A. Suleiman of the Aleppo Museum. 566 is an impression from Kish which has been included because it is similar to some material from Brak and is unlikely to be published soon elsewhere. Objects excavated by R. Matthews at Tell Brak (from 1994) are not included here.

The Catalogue was generated directly from a computer database. Catalogue entries are written on the basis that the *object* and the *design* have to be distinguished. In the case of original seals, there is one object bearing one design; in the case of seal-impressions, there is often one design on several objects (the same seal was used several times) or occasionally one object with two designs (two seals were rolled on the same bulla). Each catalogue number refers to one design. All of the information down to the dimensions refers to the object; the dimensions and the information beneath refer to the design. The object information is structured according to whether the object was found by Mallowan or by the Oates expedition. If found by Mallowan, the museum number is followed by a description of the object. For the actual seals, scientific descriptions of materials are only available for British Museum objects which have been examined by Margaret Sax of the British Museum Department of Scientific Research. In those cases her description is given before her name in brackets, and any further comments after her name are supplied by me. I have described the other seals as I saw them, but the difficulties of making determinations by inspection alone are notorious and I have usually avoided suggesting what the material is.

There then follows the siglum **W** which marks information actually written on the object by Mallowan. Information given in square brackets is only partially legible. In some cases other sources of information are marked after **W**. "Museum Record" means the British Museum Register. "Field Register" means Mallowan's field notes, now partially preserved in the British Museum (see p. 150). "Label" means a paper label written by Mallowan and still attached to the object. Mallowan wrote such labels only for actual seals so none exists in Oxford which only has impressions; unfortunately British Museum policy was to copy the labels into the register (not always accurately) and then destroy the label. I have not always cited other sources if they do not add to what is written on the object itself (which I take to be primary information), and if there is no discrepancy with the publication.

In the case of the Oates expedition the objects are marked REG and listed in the order of the site register. The register does not always give one number for each object where there are multiple impressions of the same seal. The register is compiled for internal use by the expedition. The site catalogue is made for external use and numbers are given after the register number with the siglum "TB". Several register numbers are sometimes counted under one catalogue number. Most items were excavated in named sites in a numbered locus. The place of the **W** line is therefore taken by the site name and locus number, followed by a brief locus description. These descriptions are intended to locate the places in relation to the plans published in the preliminary reports. In some cases Oates objects were found on the surface or otherwise outside the locus number system. The siglum **W** is then used followed by a provenance description.

Publications sometimes refer to an individual object and sometimes to the design. It is hard to be consistent here but I have tried to make a distinction between primary publications and publications of only one impression out of several existing of the same seal, which are placed above the dimensions; and secondary publications, and publications of composite drawings, which are placed beneath the dimensions. Contextual information from publications is given immediately after citation of the source.

The dimensions are in millimetres and always refer to the reconstructed design field, not to individual objects or individual rollings. Where the design is an impression, the dimensions are (height by width=circumference); where the object is an original seal, the dimensions are (height by diameter). A variable length such as "8.5-9.5" means that

the cylinder is oval in section. In the case of impressions, variant dimensions are not given, because slippage in the rolling means that all figures are approximate.

The design description is intended to explain my understanding of the scene, not to interpret it. This sometimes requires the inclusion of additional comments and queries.

The great majority of what Mallowan published can now be traced in one of the three museums, but in a few cases objects cannot be recovered and I have used a publication. The Oates objects were drawn in the field in 1990 and subsequently in the Aleppo and Deir ez-Zor museums in two visits in 1992 and 1993. Some objects were not seen during these visits and these have been published either from expedition photographs or from drawings made by members of the expedition, particularly Helen McDonald and John Curtis. So far as possible, the drawings are all made at 2:1 and reproduced at the same scale, which is about 140% of the original (exceptions are **2, 176, 197, 449, 450**). The photographs are not to scale. All drawings of impressions where more than one rolling is described in the catalogue are composites, and this fact is not mentioned separately there. The principles under which my drawings are made are described in D. Matthews 1992, 65.

- 1 Aleppo Museum
Two impressions on bulla fragment, back rough.
W T. 592
8(ext) × 12(ext)
The drawing shows two separate impressions of a stamp seal. Grid with diagonal cross-hatch. The edge of the field is not visible.
- 2 Aleppo Museum 1778
Buff ceramic stamp seal, roughly conical, pierced across.
W Label: E286 CB HL I
34 × diam. 36
Concentric circles. Drawing scale 70%.
- 3 Ashmolean 1939.332: 151
Impression on disk-like bulla fragment; back flattish and slightly ridged with a knob in the middle.
W JNP [...] [SW?] CORNER
Ht. 14?(ext)
Human figure and other forms. It is not clear whether this is a stamp or a cylinder impression. I suppose that the line shown above the human is the edge of the field, so that the forms above that come from another impression; but this is not certain.
- 4 Ashmolean 1939.332: 108
Impression on small disk-like bulla fragment with smooth convex base.
W T.D. Top
Buchanan-Moorey 1984, 23-4 no. 182: "TD top (surface, NW sector)"
16.5(ext) × 6(ext)
Von Wickede 1990, no. 427
Round stamp seal. Elongated figure with a human-like body and perhaps an animal head.
- 5 BM 125395
Impression on bulla, length 15 mm.
W [Unknown]
Mallowan 1936, pl. III:9, p. 29: Chagar Bazar T543, from Level 5 grave G71 (Ninevite V)
Small
This object cannot be located in the British Museum and the information given here is from Mallowan's publication. Small horned animal or perhaps hare with large ears; perhaps other traces. Probably stamp seal.
- 6 Ashmolean 1939.332: 0
Impression on bulla fragment, perhaps with basket marks on base.
W 1937 chambers
Ht. 12?(ext)
The orientation of this impression is unknown and it is not certain whether it was made by a cylinder or a stamp. There are at least two impressions on top of each other. One shows the legs and tail of an animal, probably in recumbent posture; the other shows the leg (and perhaps tail) of a standing animal, perhaps with the bottom of the field (impressed over the first animal's hindquarters), and an unclear trace. Apart from proposing that the design contained at least two animals I cannot suggest a reconstruction.
- 7 Ashmolean 1939.332: 87
Impression on part of disk-like bulla with trace of material on base.
W ZIG EXTN
Buchanan-Moorey 1984, 24 no. 186
15(ext) × 16(ext)
Von Wickede 1990, no. 426
Round stamp seal. Squatting creature with missing head, perhaps holding something; dot below; shapes (snake??) on left.
- 8 BM 125882
4 impressions on bulla fragment with hollow in back.
W F.N.P. [S?]E O[F?] WC. H[O?]
14.5 × 16.5
Stamp seal showing an animal or, less likely, a bird, with its head turned back.

- 9** Ashmolean 1939.332: 14
 Impression on clay disk(?) with grooves on back and a hole through the middle, now broken (drawn pl. VI).
W E.R. - 2 m
 16(ext)
 Stamp seal. Animal, with its body bent round the curve of the seal; unclear shapes in the middle.
- 10** BM 126501
 Impression on clay disk fragment, with stringmark and perhaps basket impression on base.
W Museum record: [None]
 11(ext) × 19(ext)
 Round stamp seal. Animal.
- 11** Ashmolean 1939.332: 141
 Impression on fragment of clay disk, basket marks on back (drawn pl. VI).
W 1939 Shaft
 11(ext) × 13(ext)
 Round stamp seal. Fragmentary animal and other forms.
- 12** Ashmolean 1939.332: 149
 Impression on disk-like bulla fragment, with string mark and trace of material or basket on base.
W Above 38 shaft - 5.50 m
 Buchanan-Moorey 1984, 24 no. 185
 14(ext) × 14(ext)
 Von Wickede 1990, no. 428
 Probably a round stamp seal, but the curved edge shown may not be the edge of the design. Animal; traces above.
- 13** BM 125904
 Impression on bulla fragment, perhaps originally attached to a jar rim, but this is uncertain.
W B.T. HURRIAN HOUSE
 16(ext) × 18(ext)
 Von Wickede 1990, no. 435
 Kidney-shaped stamp seal. An animal, probably with another animal above. Unintelligible shapes on right.
- 14** Ashmolean 1939.332: 158
 Impression on disk-like bulla fragment with string mark and pinched-up back.
W Above 1938 shaft
 Buchanan 1966, p. 131: 718: "jar mark"
 Ht. 18
 Von Wickede 1990, no. 438
 Although he published this impression with the cylinders, Buchanan came to believe that it was made by a stamp (Buchanan and Moorey 1984, 19). Horned animal; other shapes, at least some of them probably animals.
- 15** BM 126369
 Impression on disk fragment with flat base and stringmark.
W JNP EXIT ROOM Below footing
 Iraq IX pl. XXIII:5, p. 145-6: Naram-Sin Palace, fill underneath Sargonid floor of room 22
 21.5 × 21.5
 Von Wickede 1990, no. 429
 Stamp seal. Goat with frond (?) above.
- 16** BM 125866
 2 rollings on peg sealing, both ends broken; peg diam. 20.
W JNP. HILL TOP
 Wiseman 1962, pl. 29f; Iraq IX pl. XXIV: 20, p. 150 debris from Eye Temple platform
 24.5(ext) × 27(ext)
 Von Wickede 1990, no. 423
 Large stag. A second impression shows part of the edge of the seal, but I cannot attach it to the main part of the design. This looks like a Gable Seal design, but it is not certain that it is not a cylinder.

- 17** Ashmolean 1939.332: 91
Impression on bulla with groove and curved surfaces on the back; similar to jar sealing but it must have been a large jar if so, as no curvature is visible in that dimension.
W M.D. Top metre
Buchanan-Moorey 1984, 25 no. 192
22(ext) × 30(ext)
Von Wickede 1990, no. 424
Probably rectangular stamp seal. Couchant animal; hatched border below.
- 18** BM 126499
Impression on clay disk fragment, with stringmark and possibly a material impression on the flat base.
W Museum record: [None]
24(ext) × 25
Von Wickede 1990, no. 419
Square stamp seal. Two animals, with at least one more animal above; small shapes in spaces left over.
- 19** Ashmolean 1939.332: 155
Two impressions on bulla with two smooth faces and string marks on back, probably jar sealing.
W above 1938 shaft c - 2 to 3 m
Buchanan-Moorey 1984, 24 no. 184
26? × 20?
Von Wickede 1990, no. 422
Rectangular stamp seal; the top and left edges shown are not certain. Two animals; perhaps other shapes in field; very worn and unclear.
- 20** Ashmolean 1939.332: 183
Three impressions on bulla fragment with string mark down middle and ridged and crinkled surface on base: perhaps basketry covered with material?
W JNP Terrace Houses soft soil
Buchanan-Moorey 1984, 24 no. 183
23(ext) × 16(ext)
Von Wickede 1990, no. 421
Oval stamp seal. Three animals one above another: at the top, perhaps a hedgehog or pig; next, perhaps an equid (I do not see a horn); below, perhaps a cow. On the left at an angle, perhaps a lion. Delicate style with fine detail in the legs and hooves.
- 21** Ashmolean 1939.332: 89
Impression on part of disk-like bulla with flat base and string marks in the middle.
W S.W. Extn ziggurat N [of] Y.P. c - 1.30 m
Buchanan-Moorey 1984, 25 no. 195
29(ext) × 14(ext)
Von Wickede 1990, no. 434
Kidney-shaped stamp seal. Apparently at least five animals, all in a crouching posture; linear object on right; unclear shapes on left.
- 22** Ashmolean 1939.332: 95
Impression on thick bulla fragment with groove on back.
W T.D. Top
16(ext) × 35(ext)
Very smudged and overlapped impression of a stamp seal. The design was evidently figurative and contained several separate figures, but little more can be recognised (animal horns on left?)
- 23** Courtesy Dr A. Suleiman
Impression on bulla fragment with string marks and groove on back.
W Tell Kashkashok, Sector D, Uruk level
24(ext) × 36(ext)
Impression of stamp seal. Three objects with curving extensions, probably animal heads; three or four small triangular objects in the spaces left over; other traces.
- 24** BM 125884
Impression on disk fragment with flat base and stringmarks.
W UNC; Museum record: UNC

- 22(ext) × 13(ext)
Stamp seal showing at least three animals, one above another, details unclear.
- 25** Ashmolean 1939.332: 157
Impression on bulla with string mark, perhaps originally sealing for jar wrapped in material?
W 1937 chambers
Buchanan-Moorey 1984, 25 no. 194
39(ext) × 15(ext)
Von Wickede 1990, no. 437
Round or oval stamp seal. Four animals, the second one a caprid and probably both of the lower ones lions.
- 26** Ashmolean 1939.332: 189
Impression on bulla fragment with string mark and flat base, perhaps originally conical?
W JNP Court 5
Buchanan-Moorey 1984, 25 no. 193
27(ext) × 30(ext)
Von Wickede 1990, no. 431
Round stamp seal. Rampant animal; lion head; blob; inverted lion; unclear traces.
- 27** Ashmolean 1939.332: 23
Impression on fragment of clay disk with smooth back (drawn pl. VI).
W M.D. Top
16(ext) × 20(ext)
Von Wickede 1990, no. 436
The deep gouged engraving and chaotic composition make it likely that this is a fragment of a stamp seal impression. Head of a horned animal; hand with splayed fingers; other limbs and shapes.
- 28** Ashmolean 1939.332: 86
Two impressions on bulla fragment with curved grooves on back, either string marks or possibly from a ridged vessel?
W [None]
?
Fragment showing arm and hand with four fingers. It is not clear whether this comes from a stamp or a cylinder.
- 29** Ashmolean 1939.332: 142
Impression on bulla fragment, perhaps originally conical, with flat base.
W 1939 Shaft Top
Buchanan-Moorey 1984, 24 no. 188
20(ext) × 22(ext)
Von Wickede 1990, no. 425
Round stamp seal. Two animals with crossed bodies.
- 30** Ashmolean 1939.332: 81
Impression on clay bulla of stamp seal, perhaps circular.
W [Unknown]
Buchanan-Moorey 1984, 24 no. 187: "Donkey Hill (probably summit E. end)" [not illustrated]
14(ext) × 15
This object was not located either by me or by Moorey in 1980. The catalogue details given here come from Buchanan-Moorey 1984, with the design description "turtle(?) walking(?-one hind leg perhaps visible)." I did however discover a photo of the object in the museum archives, and my drawing is made from this picture. Could the original design have shown a large ostrich?
- 31** Ashmolean 1939.332: 173
Impression on bulla fragment, back rough.
W S. JNP. E. of Gt. Ct. Top
Buchanan-Moorey 1984, 24 no. 190
26?(ext) × 30(ext)
Von Wickede 1990, no. 432
Stamp seal. A lion attacks an animal. The impression is probably overstamped and it is not clear how many other forms were originally present.
- 32** Ashmolean 1939.332: 97
Impression on part of disk-like bulla with smooth base.
W M.D. Top
Buchanan-Moorey 1984, 24 no. 191: "MD Top (possibly surface CH)"

- 27(ext) × 33(ext)
 Von Wickede 1990, no. 430
 Oval stamp seal. Lion attacking animal; above, lion and probably an inverted animal.
- 33** Ashmolean 1939.332: 198
 Impression on bulla fragment with flat back.
W JNP N. Platform - 1.50 m
 Buchanan-Moorey 1984, 24 no. 189
 20(ext) × 23(ext)
 Von Wickede 1990, no. 433
 Stamp seal. Lion attacking animal; unclear traces.
- 34** Ashmolean 1939.332: 98
 Two impressions on small, roughly square bulla with groove on back.
W M.D. Top metre
 14 × 14
 Stamp seal, field square with bevelled corners. Lion above object, perhaps human or snake; traces above.
- 35** Aleppo Museum 3627
 White calcareous stone stamp seal, roughly rhomboid with a flat base and pierced axially.
W Label: F 679. 1937 shaft chambers
 16 × 11 × 7
 Horned animal with dumbbell-shape in front of it.
- 36** Aleppo Museum 6504
 Hard pink and grey stone stamp seal, originally roughly rhomboid with a flat base and pierced axially. The seal is broken in half.
W B 826. Field Register: Brak
 23.5(ext) × 20 × 8
 Horned animal surrounded by drilled shapes.
- 37** Ashmolean 1939.332: 146
 Impression on bulla fragment, back rough.
W 1937 shaft chambers
 16(ext) × 19(ext)
 Pacing lion. Strong high relief. This impression could have been made either by a stamp or by a cylinder.
- 38** Ashmolean 1939.332: 150
 Impression on bulla fragment with marks apparently made by a smooth thin rod and a knot tied with thick string on the back.
W 1937 shaft
 14 × 21(ext)
 Human legs lying horizontally; shape above. Strong high relief. Apparently but not certainly a cylinder.
- 39** BM 125880
 Impression on clay disk fragment with flat base; no stringmark preserved.
W UNC
 Ht. 30(ext)
 Naked phallic man
- 40** Ashmolean 1939.332: 210
 Impression on hard unbaked clay block with channel at back which is otherwise broken (drawn pl. VII).
W Vase 22 V. 22
 Buchanan 1966, p. 129: 708: probably site CH
 BM 125867
 Impression on shaped clay block (drawn pl. VII).
W JNP
 Wiseman 1962, pl. 29h; Iraq IX pl. XXIV: 18, p. 150: debris from Eye Temple platform
 16 × 47?(ext)
 These impressions were probably made by the same seal. At least four and probably five "squatting ladies". The necks are not shown and the heads have long hair streaming back which should not be confused with the raised arms of the figures behind which are placed above the hair. Faint; details unclear.

- 41** Aleppo Museum 3637
Green-grey limestone(?) cylinder seal.
W Label: F. 712. Pit S of South Wall Gt. Ct. JNP c - 1 m
Iraq IX pl. XXI: 17,18, p. 135-6: F. 712, Naram-Sin palace, room 1, archaic debris under the foundations
30 × 27
GMA pl. 21bis, E; Aleppo II 304
Two figures squatting facing between them two triangles, each surmounted by two dots; beneath, two more squatting figures, two ladder patterns and a table(?). On right, four squatting figures in two rows; on left, large figure facing terminal tree. The posture of this figure is unclear and depends on the interpretation of some lines around it.
- 42** Aleppo Museum 7737
Translucent green soft stone cylinder seal; small hole (diam. 2 mm).
W G 309
Iraq IX pl. VII:1, p. 97: G. 309, grey brick stratum, south side of the Eye Temple platform
27 × 19
Aleppo II 312
The field is divided into six panels, each containing three triangles; ribbed band above.
- 43** BM 126328
Brown and grey calcite, limestone (M. Sax) fragment of cylinder seal, just under half of circumf. preserved.
W Museum record: [None]
14(ext) × 23.5(ext)
Fish and fragments of structure(?)
- 44** Ashmolean 1939.332: 133
Impression on disk-like bulla with string and basket marks on base.
W New Ct.
Buchanan 1966, p. 129: 709
19(ext) × 20(ext)
"Spider" motif. Orientation uncertain.
- 45** REG 5028 TB 12008
Rolling on bulla with impression of folded material on back, perhaps neck of bag?
FS 798: Area E of level 5 room 14, under a level 3 floor
15.5 × 33?
Man and two horned animals; there may be some overrolling in the area behind the human.
- 46** Ashmolean 1939.332: 182
Impression, perhaps on jar sealing fragment.
W JNP Gt. Ct.
Buchanan 1966, p. 130: 716
17(ext) × 22(ext)
Row of animals connected by ladder-pattern strips.
- 47** Ashmolean 1939.332: 109
Impression round curved surface of unbaked clay cylinder with flat base, one side and top missing (drawn pl. III).
W New Ct. - 2.6 m
Buchanan 1966, p. 130-1: 717
15 × 38(ext)
Two couchant horned animals; small unintelligible shapes around them. It is not clear how far these shapes are the effect of overrolling of which there is certainly some.
- 48** Ashmolean 1939.332: 35
Impressions on bulla fragment with string mark on back.
W Above 38 shaft c. - 2m
Ht. 11.5
Row of animals with long horns. The two impressions cannot be joined.
- 49** REG 1895
Two rollings on bulla fragment with string marks.
W HH
10.5(ext) × 32(ext)
Drawing after Brak expedition. Three horned animals; star; lozenge.

- 50 BM 125799
Translucent calcite body (M. Sax) cylinder seal, light brown.
W Field Register: JNP Brak
Iraq IX pl. XXI: 15,16, p. 135: B. 809, sub-surface debris of Naram-Sin's Palace
10.5 × 11.5
Two couchant horned animals.
- 51 BM 126426
Colourless fluorite (M. Sax) cylinder seal.
W Museum record: G 304. Top filling of Gawra Temple
Wiseman 1962, pl. 29c
11 × 14
Probably two horned animals, heavily stylised, with hatched field.
- 52 BM 125591
Fired/glazed steatite (M. Sax) cylinder seal, white, much of surface bad.
W Museum record: Mallowan Khabur. Tell Arbit. Field Register: same level as [rich?] G. 131 in a chamber which may be I(a) or even II
Mallowan 1937 pl. XIVA, lower left, p. 151: A. 353. Chagar Bazar early level 1.
21.5 × 13-14
Foliage motive with ladder-patterns on either side and other lines. Surface bad.
- 53 REG 1618 TB 7039
Two rollings on peg sealing with no string marks preserved; peg diam. c. 25 mm.
FS 1173: Level 3 fill west of revealed doors building
J. Oates 1985, pl. 11:2, in fill with "Jemdet Nasr" pottery types, but cf. Oates and Oates 1993, 182
22.5 × 28
Hatched arch with curls and approximately triangular shape below; the circled dot, upper right, may appear oval because of distortion of the impression.
- 54 REG 1191 TB 6012
Bone(?) cylinder seal fragment
SS 175: Area north of SS building, hard-packed red clay layer, probably below upper levels
D. Oates 1985, 173 pl. XXVI
13.5(ext) × 8.5
Hatched arcade and circled dot.
- 55 Ashmolean 1938.101
Two rollings on bulla with flat end and curved string mark, perhaps peg sealing but no trace of the peg preserved.
W JNP L[...]
Moorey and Gurney 1978, no. 1
Ashmolean 1939.332: 82
Three rollings on one face of bulla fragment with two preserved faces at right angles.
W Terrace edge outside E. wall JNP
Ashmolean 1939.332: 204
Two impressions on bulla fragment with curved string marks on back.
W F 75[3?]. Field Register: F753: JNP Dump
BM 125868
2 rollings on peg sealing with flattish end, peg diam. 20?
W F.N.P. TOP NE CORNER OF HOUSE IN WAL[L] COMPLEX
37(ext) × 28
Large hatched ring within hatched wavy bands. A circled dot between two triangles in the middle of the ring; two more circled dots at the top and bottom of the field respectively.
- 56 Ashmolean 1938.81
Green glazed "steatite" cylinder seal.
W [None]
Buchanan 1966, p. 135: 736: bought in the Khabur region (Mallowan)
24 × 8
Triangle made of ladder patterns; strokes and circled dots in the field.

- 57** BM 125570
 Black, probably tuff (M. Sax) cylinder seal, slightly damaged at one end.
W Museum record: A 369. Bought Mallowan Khabur. Field Register: purchased Suleiman Pak
 37 × 11
 Collon 1987 no. 41
 Triangle made of large ladder patterns; 6 dots and herringbone pattern in field.
- 58** REG 4954
 Impression on pot sherd, orange gritty fabric with some chaff, thickness 20 mm.
W ST, wadi surface
 Ht. 20 (ext)
 Drawing after Brak expedition. Ladder patterns forming a large triangle; infill hatching; hatched border below.
- 59** Aleppo Museum 3713
 Black, slightly soapy, stone cylinder seal.
W Label: F 702. Cyl. seal New Ct @ - 2.5 to 3 m
 17 × 6
 Aleppo II 324
 Triangle made of ladder patterns; triangles and strokes in field.
- 60** REG 618 TB 4014
 Impression on bulla fragment with string mark on back.
 ST 51: Cut. Ashy fill layer, ED date, contaminated.
 22.5 × 22(ext)
 Drawing J. Curtis. Diagonal ladder pattern and hatched triangle; top and bottom lines.
- 61** Aleppo Museum 6329
 Impression on bulla fragment, back rough.
W [None]
 30(ext) × 20(ext)
 The orientation of this design is unknown. Ladder and arch patterns between two hatched strips.
- 62** Ashmolean 1939.332: 176
 Impression on bulla fragment, back rough. See also design 555.
W JNP E. Pal Extn - 2 m
 Buchanan 1966, p. 129-30: 711
 9(ext) × 20?
 Most of this design may be preserved. Arcade pattern, hatched above and below.
- 63** Ashmolean 1939.332: 104
 Impression on bulla with flat surface on back.
W T.D. TOP
 13(ext) × 31(ext)
 Ladder or arcade pattern; it is unclear if the shape on the right is a geometric form, such as a rosette, or is figurative, such as an animal.
- 64** REG 3247 TB 10027
 Rolling on disk with basket impression and grooves on back.
 SS 533: Topsoil, above area of room 5
 26(ext) × 21(ext)
 The orientation of this design is unknown. It may show an animal with long curving horns, with a hatched field and other shapes; or the entire design may be geometric.
- 65** BM 125571
 Black and dark green serpentinite (M. Sax) cylinder seal.
W Museum record: Mallowan Khabur. Field Register: possibly same as A370, purchased Habur-JJ[Jaghjagh] region
 37.5 × 11.5
 Collon 1987 no. 909
 Two stylised animals with long horns; strokes and arcs in field.
- 66** Ashmolean 1939.332: 90
 Impression on cloth-marked clay sealing.
W [Unknown]
 Buchanan 1966, p. 132-3: 726: "YP, extn."

Ht. 21(ext)

This object is now lost so the information given here comes from Buchanan's catalogue. Animal(?) above double spiral.

67 Ashmolean 1939.332: 139

Impression on bulla fragment with back rough.

W JNP New Ct

Buchanan 1966, p. 138: 751

21(ext) × 15(ext)

Running spirals.

68 Ashmolean 1939.332: 178

Rolling on peg sealing with flattish end (peg diam. c. 30?).

W JNP Court 5

Buchanan 1966, p. 136: 749

18.5 × 24(ext)

Running spirals between hatched line borders; small blobs in the interstices.

69 Ashmolean 1939.332: 73

Two rollings on bulla fragment, back rough.

W JNP C CENTR[AL?] BAST[ION?]

24(ext) × 22(ext)

Rampant horned animal (?) in middle; behind it, perhaps legs of inverted animal; unintelligible shapes; hatched border.

70 Ashmolean 1939.332: 99

Impression on half of bulla with basket mark on back and string mark inside (drawn pl. VI).

W T.D. Top

Buchanan 1966, p. 138: 752

15(ext) × 30(ext)

Large lion below rhombus; hatched border. Buchanan suggests that the creature is a bird.

71 Ashmolean 1939.332: 156

Rolling on concave surface of bulla with string mark on back.

W Above 38 shaft - 30 cm below Sargonid wall

15(ext) × 23(ext)

Two pacing animals with overlapping legs; notched line borders; shapes in the field.

72 BM 125885

Impression on disk fragment with stringmark and basket impression on base.

W UNC

Wiseman 1962, pl. 31h

24 × 21(ext)

A man with a spear stabs at a lion which is pouncing on an animal lying on its back; lion(?) above; triangle in front of man, hatched line borders.

73 Ashmolean 1939.332: 120

Rolling on bulla fragment with string mark and perhaps basket impression.

W New Ct. - 2.5 m

Buchanan 1966, p. 138: 753

21 × 21(ext)

Lion and man with spear back to back. Hatched borders above and below.

74 Ashmolean 1939.332: 113

Two rollings on bulla fragment with basket impression on base.

W New Ct.

15(ext) × 38(ext)

The two rollings do not join, but the original design must have shown a pair of lions, each attacked by a human behind, and perhaps an animal beneath. Hollow shape above the left lion, and perhaps above the right one as well.

75 REG 985

TB 5086

Two rollings on broken bulla fragment with back rough; possible cord mark.

ST 111: Lev. 7 terrace wall, Late ED.

Ht. 15.

An animal, upside down with its forelegs pointed upwards and its head down, is attacked by a rampant lion. The lion turns its head back to be grasped by a human or bullman; shapes in field. The second impression shows human and animal legs and a hollow shape in the field.

- 76** Aleppo Museum 6536
Impression on edge of bulla fragment.
W T. [D OR B] 24
18(ext) × 18(ext)
Lion looking backwards, attacked by man. Row of small wedges above.
- 77** REG 2816 TB 9004
Two rollings, perhaps on fragment of peg sealing, but no part of peg preserved.
W Brak, surface, SE corner of tell
23.5(ext) × 32.5(ext)
Large lion rampant over an animal with along curving horn which is bent back with its forelegs uppermost; oval shapes between them and perhaps also in the animal's horn and above the lion's back. Unclear trace on right and above. Hatched line border at top.
- 78** Aleppo Museum
Impression on bulla fragment, back rough.
W Field Register: [possibly same as] A399 ("cervoid and a snake") CT III-IV
18(ext) × 22(ext)
Animal and two curved shapes, perhaps snakes or a geometric figure.
- 79** Ashmolean 1939.332: 206
206 and 213 join to form a bulla with three rollings made round a long and slightly flared peg or other cylindrical object (diam. c. 40); no string mark is visible except across the end, but the impression of the "peg" is slightly ridged in places (drawn pl. III).
W CR.H. W. of Ox Rm Level B
Ashmolean 1939.332: 207
207, 211 and 212 join to form a large bulla with three rollings, made around a peg (diam. c. 40) which must have projected from an object with a flattish surface made of reeds or some other narrow tubes. Stringmarks run across the "reeds" and along the inside of the peg impression (drawn pl. III).
W CR.H. W. of Ox Rm Level B
Ashmolean 1939.332: 211
See 207.
W CR.H. W. of Ox Rm Level B
Ashmolean 1939.332: 212
See 207.
W CR.H. W. of Ox Rm Level B
Ashmolean 1939.332: 213
See 206.
W CR.H. W. of Ox Rm Level B
27.5 × 39
GMA 1747; Buchanan 1966, p. 141-2: 764: "jar marks" in error
Frog or toad and bird, surrounded by two snakes flanked by two birds. A hero in a short skirt on the right stabs a snake with his spear. Firm bold engraving.
- 80** REG 4642 TB 11032
Three rollings, perhaps on flat ended peg sealing, but no trace of peg preserved.
SS 585: Courtyard 8 floor, near room 30
Matthews 1991, no. 21
24 × 44(ext)
Boat-god punting with a double pole, bearing a bull and a plant; unclear objects above bull and beside pole.
- 81** REG 4610 TB 11043
Two rollings, perhaps on peg sealing (peg diam. c. 20 mm?); end broken, worn.
SS 560: Scraping surface east of room 10
22(ext) × 37(ext)
A divine boat has a human protome at the prow with a horned headdress. A figure with long hair sits in the boat with a vase (or paddle??) in front. Traces on each side of the boat appear to belong to an animal contest frieze. Unclear trace above the protome. A second rolling shows the top or bottom of the field with a line border.
- 82** Aleppo Museum 6770
Impression on bulla with string mark, perhaps "package sealing".
W HF B210 S

19.5 × 26(ext)

Standing man in boat; shapes on right may include human and animal legs.

83 Ashmolean 1939.332: 187

Impression on bulla fragment with slightly curved back.

W Ct 5 JNP

15.5(ext) × 13(ext)

Two humans; unclear zig-zag object on left.

84 Ashmolean 1939.332: 2

Impression on clay strip.

W E. Ridge close to Tablet [Rm]

Buchanan 1966, p. 154: 817

Ht 9(ext)

A row of four little men, facing right, raising their arms towards an incomplete object, understood as a shrine door by Buchanan. Beneath them, probably the head of a man drawn at a much larger scale.

85 Aleppo Museum 7743

Flaky pitted soft black "steatite" cylinder seal, surface scratched.

W Field Register: from 14th. course down from top of wall, 2nd. south chamber inner series E. end of Gt. Court JNP

23.5 × 8.5

Aleppo II 408

Three men approach a structure with a pitched roof, which encloses a seated person. Many small dots in upper field. It is possible that the lines on the left of the structure are not part of it but represent a ladder or standard grasped by one of the approaching men.

86 BM 126371

Impression on almost complete bulla with stringmark and flat basketwork impression on base.

W F 755. Field Register: Houses E of Division Street - 1m JNP

Wiseman 1962, pl. 31b; Iraq IX pl. XXIII:8, p. 146: CH west end, early debris

23 × 31(ext)

GMA 1351

A structure containing three panels, each with a nude man. Above, at least five human protomes with raised hands; triangle between two of them.

87 REG 2268

TB 8021

Impression on bulla fragment with grooves on back.

TP 38: Post-Uruk packing in the Eye Temple area

23 × 30(ext)

Rectilinear framework forming two cells, each containing a pair of humans with a triangle or dagger between them; above, four human protomes, each brandishing a weapon.

88 Ashmolean 1939.332: 145

Two rollings on object resembling test strip fragment, though the impressions are not clear and straight as is usual in such sealings. The surface is wrecked by scored lines or overfolds and there are heavy chaff marks on the back.

W Above 193[9?] shaft. 2[....]

Buchanan 1966, p. 144: 780

23.5? × 35(ext)

GMA 1748

Both impressions are badly distorted and they are also scored by lines and impressions of threads (from a hairy string?). The scorings may be due more to deep engraving causing high relief which was folded over, than to incisions. The top and bottom of the field shown here are not certain and the whole reconstruction is doubtful. Standing man, flanked by pots(?), hollow shapes, and other forms; winged creature (?) behind him. In front of him may be a structure with unclear shapes above and within it.

89 Ashmolean 1939.332: 111

Three(?) rollings on bulla with groove on back.

W New Ct. c - 2.5

Buchanan 1966, p. 141: 763

17 × 21(ext)

Buchanan suggested this design shows two humans crossed by the legs and body of a goat. I think he was on firmer ground when he referred to design 282, which belongs to the "Syrian ritual series" identified by Amiet (GMA 1351-1354). Seen in this light, we can describe our design as a structure containing panels in which are an animal(?) and a plant(?) respectively; above, at least two human protomes holding weapons; unclear shapes on either side.

- 90** BM 126374
 Impression on test strip fragment.
W EAST Ridge Centre c - 2.5 m
 Iraq IX pl. XXIII:15, p. 147: ER east of room 6, Sargonid debris
 18.5 × 24(ext)
 Seated man with plume-like headdress faces a man(?) under a crescent. Behind, crossed "wrestlers" and a star inside a looped motif. An irregularity below this motif might possibly result from recutting of the original seal. Delicate engraving.
- 91** BM 125854
 4-sided docket with hole at one end, which is broken. No numbers or marks. Four rollings, one on each side.
W JNP
 Iraq IX pl. XXIV:14, p. 149: Pre-Sargonid debris, west end of Naram-Sin's Palace, in the foundations
 16 (ext) × 37
 A man holds a large pot above a table in front of a seated figure. Behind the first man, a man climbs a ladder which bends over a fourth man and a dot, which are both above a person bending over a cone.
- 92** BM 125796
 White/cream calcite, marble (M. Sax) cylinder seal. Surface pitted and chipped.
W Field Register: Brak WP
 Iraq IX pl. XXI: 9,10, p. 134: B. 808, upper debris on E side of Eye Temple platform, perhaps originally associated with a building under the Naram-Sin Palace.
 20 × 10.5
 GMA 1366
 Three men approach a seated man drinking from a pot through a tube. The first man menaces the second one, holding his hands behind his back and raising an object; the arms of the third man are unclear.
- 93** REG 7104 TB 14041
 White marble(?) cylinder seal.
 SS 949: East half of room 18, hard yellow-brown trample layer over part of floor
 D. Oates and J. Oates 1993, 185, 169 fig. 17
 24 × 9
 Design in two registers with no separation. Above, row of figures, perhaps both humans and animals, approach a seated man; small objects, perhaps including vessels. Below: perhaps human flanked by two rampant animals; lion crossed with animal(?); rampant animal in contest with human(?). The design is obscured by the practice of making bodies out of two large drillings with connecting linear detail which is not always visible; there may also be some damage or recutting, especially in the area of the triangle above the lion's head.
- 94** Ashmolean 1939.332: 105
 Four rollings on peg sealing with flat end, peg diam. c. 20 (drawn pl. III).
W Royal Shaft
 Buchanan 1966, p. 146: 785: "jar mark" in error
 25? × 33.5
 Design in two registers. The top left area is unclear but may have originally consisted of two seated figures facing the same way, each with a standing attendant. On right, a bullman with a spear(?) and a hero with an unusual head attack a figure of uncertain character, thought by Buchanan to be an erect bull; scorpion behind. Lower register: on right, a bull-headed demon wielding an axe above an inverted animal. To the left, a hero(? or rampant animal) and a rampant lion. Behind the demon, an unclear area with at least four main figures, the one on the right (i.e. behind the rampant lion) human. The other figures could include a lion and a scorpion, but this is not certain. The impressions of this seal are heavily overrolled and Buchanan's view, which differs on some points from mine, should also be consulted.
- 95** REG 833 TB 5080
 Three rollings on broken bulla, perhaps crumpled material mark on back.
 CH 515: Level 6 (ED III); levelling for construction, street area.
 37(ext) × 54?
 Design in two registers separated by a hatched band. Above: pair of seated figures, each on a different kind of stool, drink from a pot between them through tubes. A second pot with tubes supplies a seated and a standing figure on either side of it. Below: two seated figures, a standing figure and a rectangular frame.

- 96** REG 4608 TB 11028c
 Four rollings on bulla fragment with concave surface on back, possibly large peg (c. 40 mm diam.), but this is not certain.
 SS 567: Upper fill E of room 31 in the monumental complex
 Matthews 1991, no. 22
 23.4 × 44?
 The relationship between the two halves of the drawing relies on the assumption that each fragment has part of the same seated man, bottom centre. If the vase with a tube is repeated bottom left then most of the design is preserved. Design in two registers separated by a line. Above: seated and standing man on either side of unclear object; plant(?); man and animal; rectilinear structure. Below: two seated men flanked by three attendants; seated man drinking from vase through tube; plant(?).
- 97** Aleppo Museum
 Impression, probably on jar sealing.
W JNP SPINE WALL TOP COURSE
 ?
 Quite finely engraved, but the surface is bad and the impression is unintelligible. There may be more than one rolling. The traces may include standing and seated humans and a plant(?).
- 98** REG 364 TB 3006
 Impression on test strip.
 CH 140: BE. Level 3 fill below level 2, in the "street". Late Akk.
 D. Oates 1982, 199, pl. XIVd
 25 × 43
 Drawing J. Curtis. Two seated men with pot and drinking tubes between them; geometric pattern above; tree behind the men. Possible harp(?) and small bird(?) to left of pot.
- 99** REG 3000 TB 9003
 Three rollings on sealing perhaps originally attached to a bag neck tied with string.
 FS 606: Area S of level 5 building, under a level 3 floor
 D. and J. Oates 1989, 210 pl. XXVb
 18 × 23
 Two persons sit drinking through tubes from a jar on the ground between them; crescent above the jar; attendant and dot on right.
- 100** BM 125920
 2(?) rollings, probably on peg sealing with an angular peg, peg diam. c. 19?
W L.T.
 10(ext) × 17(ext)
 Seated figure; traces on either side.
- 101** Aleppo Museum
 Impressions on test strip fragment.
W A400(B). Field Register: [TRAB?] OF LEVEL II
 Ht. 13?(ext)
 It is most likely that the drawing shows two rollings of the same seal, but a two-register design is not quite impossible. Above: seated person drinks from a pot through a tube; behind, standing person and unclear shapes. Below: standing and seated persons back to back, linear object between them.
- 102** REG 4447
 Impression on small bulla fragment.
 SS 812: Room 18, fill above floor
 Matthews 1991, no. 20
 8(ext) × 27(ext)
 The two bands are not quite parallel and probably represent two rollings; but it could be a distorted impression of a two-register seal. Human(?) feet; triangular furniture?
- 103** Aleppo Museum 6775
 Impression on test strip fragment.
W JNP - 1 m [B2]10 S
 23(ext) × 26(ext)
 Two rampant caprids surrounded by unintelligible shapes.

- 104** REG 2817 TB 9005
Three rollings on large bulla made around a knot and thick string.
CH 805: Below Level 9
20(ext) × 31
The orientation of the design is at right angles to the usual arrangement, and the design is in two registers. The first register shows a nude figure, bending slightly forward, being attacked by two nude heroes with hairy heads. On the right, two persons in combat (or dancing?). The second register has a bullman in combat with an unclear figure, and a hero in a short skirt grasping two rampant lions. The stylisation is unusual with spiky hairstyles and much small detail.
- 105** Ashmolean 1939.332: 22
Impression on bulla fragment with cord(?) mark on back.
W E. Ridge Sargon
17(ext)
The design is very worn and may show a row of rampant lions or animals?
- 106** Ashmolean 1939.332: 148
Rolling on bulla like a test strip with a knob on the back.
W Above 1938 shaft c. 5.50
22(ext) × 25(ext)
At least three rampant animals (lions?) in a row; unclear forms upper right.
- 107** REG 4643 TB 11036
Two rollings on edge of bulla fragment.
SS 834: Room 15 and part of court 8, fill above floor
Matthews 1991, no. 24
25(ext) × 20(ext)
Man grasping bull by the tail; tail of another animal; traces of tail and feet. It is uncertain whether the two fragments join.
- 108** Ashmolean 1939.332: 215
Impression on fragment of thick test strip.
W F 751. Field Register: JNP Top
16(ext) × 29?
Lower bodies of two rampant animals and a nude hero. Unclear trace behind left animal. If the human legs on either side of the drawing belong to the same figure then we have an unusually narrow scene as the seal would have been about three times as long as it was wide.
- 109** REG 7553
Impression on bulla with peg and string mark on back.
W SS 2
13(ext) × 23(ext)
Drawing after H. McDonald. Feet of animals (and perhaps a human??), belonging to an animal contest frieze.
- 110** REG 5027
Impressions on peg sealing.
SS 651: Pit, cutting earliest upper level
Ht. 21(ext)
Drawing after Brak expedition. Crossed animals or lions; further animal and perhaps hero on left.
- 111** REG 5692
Impression on bulla fragment with string marks on back, perhaps jar sealing.
SS 1018: Burnt debris, west of room 20
26(ext) × 22(ext)
Drawing after H. McDonald. No doubt crossed animals; dot and trace on left. Very faint.
- 112** REG 5690
Impression on bulla fragment with string mark on back.
SS 1018: Burnt debris, west of room 20
18(ext) × 23(ext)
Drawing after H. McDonald. Probably a design of crossed animals with a dot under the crossing; there may be some overrolling.
- 113** REG 255 TB 1056
Rollings on two test strip fragments.
W ER 28:5: Level 4, Room 43 (ED III destruction)

27 × 26(ext)

Crossed lions above a fish-shaped object, probably another object above the crossing; further animals on each side?

114 BM 126320

Ceramic? (M. Sax) cylinder seal, brown/black, slightly chipped.

W Museum record: F 711. Field Register: Crest Houses, near top of crest. Top surface. JNP

Wiseman 1962, pl. 15k; Iraq IX pl. XXII: 7,8, p. 143-4: F. 711, CH, subsurface of Sargonid houses

27.5 × 15

Boehmer 1965, 145 no. 113

Man reaches out on both sides to caprids which are menaced by crossed lions in the centre of the design.

115 Ashmolean 1939.332: 161

Impression on bulla fragment, probably originally attached to a jar shoulder; worn and pitted (drawn pl. V).

W Dump below 1938 shaft?

Ht. 27(ext)

The impression is obviously overrolled but it is not clear exactly where. The surface is worn and pitted and the traces are especially uncertain on the extreme right. The original design must have shown a frieze of animals, perhaps crossed over each other, with a hero at one end.

116 Ashmolean 1939.332: 34

Two rollings on peg sealing, diam. c. 28.

W E.R. 3rd. Dyn. Level

20(ext) × 37(?)

Crossed lions attacking rampant goats(?) on either side; on left, man(?)

117 REG 5166

TB 12007

Docket of irregular form (44 × 30), approximately rectangular in section; no string mark; 3 number holes without flanking grooves.

SS 669: Room 25, upper fill

21(ext) × 51?

Impressions very faint. Contest frieze, probably with two animals between two rampant lions; long object and human behind one lion and unclear object behind the other.

118 Ashmolean 1939.332: 199

Three rollings on peg sealing fragment (peg diam. 20-25); no trace of string preserved.

W JNP 1st Line E of Gt. Ct.

18(ext) × 21(ext)

Crossed lions flanked by rampant animals; plant(?) beneath.

119 BM 125877

Impression on bulla with stringmark, flat surfaces and groove on back, perhaps made by folded material.

W JNP TOP

Wiseman 1962, pl. 31g

21(ext) × 29?

Two lions, probably with profile heads, crossed and attacking animals on either side. On the right, a human figure(?), or conceivably a bullman. The traces on the left of the drawing are difficult to understand, but if they are part of this figure then we might have a bullman with a tail.

120 BM 125858

Two rollings on bulla with stringmark, possibly peg sealing but no impression of peg preserved.

W JNP SPINE

Wiseman 1962, pl. 31d; Iraq IX pl. XXIV:13, p. 149: Room 12 of Naram-Sin's palace, in Sargonid debris

19 × 29 (ext)

Two lions with their heads in profile are crossed over and attacking herbivores (the one on the right not preserved except perhaps in a fragment on the left). The left herbivore is also grasped by a man; a scorpion behind him.

121 REG 623

TB 4016

Impression on bulla fragment.

ST 9: Gully fill, probably Akk.

20 × 23(ext)

Drawing J. Curtis. Two heroes back to back, probably each grasping rampant animals but the details are hard to understand.

122 Ashmolean 1939.332: 53

Three rollings on a bulla with a thick string mark on the back.

W East Ridge Top Soil

17.5 × 28.5

A lion crossed with a caprid, with another animal on the left, are attacked on each side by a hero, wearing a skirt on the left and nude on the right.

123 Ashmolean 1939.332: 18

2 rollings, probably on peg sealing, peg diam. c. 17.

W E. Ridge Top

Buchanan 1966, p. 149: 799

18(ext) × 22

Contest with two crossed lions attacking animals. Hatched area beneath the lions.

124 BM 125905

2 rollings on fragment of a thin clay sheet. Traces on the back show that this sheet was originally attached to another impression of the same seal!

W UNC

Wiseman 1962, pl. 30g

18(ext) × 31?

Crossed animals, probably lions, above a small caprid; rampant caprids on either side. Geometric shape behind these caprids; dot to left of it.

125 Ashmolean 1939.332: 201

Rollings on three surviving faces of docket fragment. Docket must have had at least 4 sides; no numbers or other markings are preserved.

W FS Top

27.5(ext) × 34(ext)

The design evidently centred on crossed animals flanked by rampant animals, though the details are unclear. The terminal area, in the middle of the drawing, contained a figure which looks like a hero in a short skirt in its lower parts, but has a strange barred grille above. This grille is preserved in two different rollings and so must be genuine. Either I am not understanding the hero properly, or the figure is something else entirely (e.g. cuneiform?).

126 REG 4548

TB 11040

Vertical rolling on jar shoulder, beside pattern of incised lines and circles; greenish buff clay with some vegetable and grit temper, thickness 11 mm.

SS 825: Fill of room 15 and adjacent part of court 8

Matthews 1991, no. 23

11.2 × 32(ext)

A man holds a tree, behind him perhaps a snake (but possibly this line is a combination of his arm and a tail). The rest of the design probably consisted of crossed animals but the number of elements is uncertain. A lion(?) can be seen behind the man, with the forequarters of a horned animal above; there is a pair of hindlegs to the right of the tree.

127 BM 125921

2 rollings on a convex bulla fragment with stringmark on back.

W H.F.

14(ext) × 28(ext)

Frieze of four animals, perhaps crossed lions in the middle and caprids flanking them. On the right, perhaps a human.

128 BM 125592

Calcite, damaged limestone? (M. Sax) cylinder seal, white/cream, broken, one end missing, surface pitted.

W Museum record: Mallowan Khabur. T. Turzi.

Mallowan 1937, 127, mention of seal in grave TAG 20, Tell Arbit: seal not illustrated but description matches.

18(ext) × 11

Crossed animals flanked by another pair of animals; terminal area probably includes a hero and a scorpion(?); upper half of field missing.

129 Ashmolean 1939.332: 83

Impression on bulla with flat end, could be peg sealing but no peg or string mark preserved.

W Terrace Hses Lev. I

16 × 19?

Crossed lions attacking caprids on either side; terminal object, perhaps plant. The discrepancy in the details of the two impressions of the right-hand mane may be due to slippage of the rolling.

- 130** Aleppo Museum 3712
Shell cylinder seal, worn.
W F 725. Above 1938 shaft c - 1 m
17 × 8.5
Crossed animals with rampant flanking animals; all details unclear.
- 131** Ashmolean 1939.332: 184
Impression, perhaps on test strip fragment.
W JNP Soft soil by Circular corner
25(ext) × 21(ext)
Design probably in two registers, but only some feet are recognisable in the upper register. Below: a lion crossed with a horned animal, unclear figures on either side.
- 132** Aleppo Museum 6762
Impression on bulla fragment, back rough.
W JNP HILL TOP B210 [S]
19.5(ext) × 35(ext)
Two pairs of crossed animals, the ones on the right are lions, the ones on the left unclear (the design looks confused there but there is no sign of overrolling). Uncertain shapes at either end. Traces of feet upper right may indicate the existence of an upper register.
- 133** REG 2055 TB 8022
Impression on test strip fragment with bent end.
W Surface, near FS
28(ext) × 31(ext)
Design in two registers with no separator. Above: Crossed lions with a rampant bull (?) on the left menaced by a hero; dagger(?) in field between them. On the left, traces of crossed animals: it seems to me improbable, though not impossible, that these are the same animals as are preserved on the right. Below: hero(?) fighting rampant horned animal; figure in short skirt, with a head rather resembling an animal's, grasping an inverted animal; dot; unclear trace in lower right corner.
- 134** BM 125572
White/cream calcite, marble (M. Sax) cylinder seal.
W Museum record: Mallowan Khabur. Field Register: Large room S centre of CT(a) under the level of the packed mud pavement ... may in fact date Chagar Bazar level 2
Mallowan 1937 pl. XII:4, p. 150: A. 351. Chagar Bazar BD level 2
29.5 × 15
GMA pl. 85bis, L; Collon 1987 no. 73
Design in two registers. Above: four pairs of crossed animals and a rampant horned animal. At least one of each pair is probably a lion; the other is indeterminate, possibly again lions. Below: two pairs of crossed animals, in each case a lion and a caprid. One of the lions has a frontal head. On right, rampant horned animal. On left, three rampant animals, nature uncertain. Numerous dots and some strokes in the field; drilled style with linear detail.
- 135** Ashmolean 1939.332: 197
Impression on peg sealing fragment, with no trace of the string preserved (peg diam. 20-25?). The peg was apparently split.
W JNP New Ct Centre below footing
16(ext) × 22(ext)
Design in two registers separated by a line. Above: crossed lines flanked by rampant animals, perhaps with long horns curving over their backs; unclear terminal object, most likely a hero or an eagle; below: file of animals.
- 136** Ashmolean 1939.332: 124
Two(?) rollings on peg sealing fragment; end missing and no string mark preserved.
W CR.H. N. side N. Extn
Buchanan 1966, p. 148: 794: "jar mark" probably in error
19(ext) × 32?(ext)
Design in two registers. Above, an animal falling forward; a rampant lion; a crossed lion and caprid; feet, probably of a human. The traces at each end are unclear and may be overrolled. Below, a hairy hero with profile head and a lion with frontal head attack a horned animal between them; on left, frontal head of bullman or human-headed bull; unclear trace on right.
- 137** REG 3176 TB 10025
Fragment of bulla made around a knot, with 4 preserved faces, all sealed. Not a docket.
SS 223: Top of fill in ceremonial complex

16(ext) × 35?(ext)

Contest frieze: leopard attacks a human who attacks a goat which is falling downward and is also attacked by a lion with a frontal head which is crossed with another lion which attacks a horned animal. A line behind the human could be interpreted as a tail, making him a bullman; but he does not have a bullman's lower body and the line may be better understood as a filler. At extreme right there is a figure with a tail who may be a bullman; perhaps a rampant lion beyond him. A possible lion also exists at extreme left, and these could be the same figure. Behind the leopard and above this lion is a form which might be understood as a small inverted animal. There are traces of a lower register, probably including the forms of humans and lions.

138 REG 417

TB 3000

Impressions on docket, square section, (81 × 37); 2 string holes at one end.

CH 209: BE. Level 6 destruction (ED III); Room 63, upper deposit.

D. Oates 1982, 192, 199 pl. XIIIa

REG 418

TB 3001

Impressions on square-sectioned docket, (75 × 39); stringmark. 7 holes in side.

CH 209: BE. Level 6 destruction (ED III); Room 63, upper deposit.

D. Oates 1982, 192, 199, pl. XIII e, f

REG 419

TB 3002

Impressions on square-sectioned docket, tip broken.

CH 209: BE. Level 6 destruction (ED III); Room 63, upper deposit.

D. Oates 1982, 192, 199, pl. XIIIb

REG 420

TB 3003

Impressions on square-sectioned docket, (74 × 38); stringhole. On one side an archaic sign is inscribed, perhaps that for "oil" (D. Oates 1982, 199).

CH 209: BE. Level 6 destruction (ED III); Room 63, upper deposit.

D. Oates 1982, 192, 199, pl. XIII c, d

30(ext) × 42.5

Drawing J. Curtis. Design in two registers separated by a line. Above: crossed lions attacking a rampant horned animal on either side; hero in short skirt on left, bullman on right. Below: lion headed eagle and two pacing animals; two stars. In field: five dots.

139 REG 5987

TB 14085

Impression on test strip fragment.

FS 869: Level 5 courtyard 5, ash lens under floor

24 × 44(ext)

Crossed lions attacking caprid and stag on either side; crescent above; terminal area unclear. The impression gives the appearance of a row of small figures at the bottom, but it appears that most of this area may just be the feet of the animals. It is possible that damage or a line of geological weakness in the stone in this area may have contributed to the effect.

140 REG 7228

TB 14087

Square-sectioned docket (94 × 39) with double string hole at both ends; no number holes or markings.

W HH north slope

25(ext) × 42

Lion crossed with horned animal, flanked by two caprids and with hero in short dress on the right. A second scene shows a rampant lion and an inverted herbivore. Along the bottom, snake, fish(?) and animal(?); six dots and stroke in field. On left, unclear object in field, like an animal head attached to a leg.

141 Ashmolean 1939.332: 59

Two rollings on a bulla fragment with a string mark on the back.

W E. Ridge Sargon level [with XY??]

24 × 34

Lion crossed with another animal, possibly also a lion; on either side (assuming that most of the width of the design is preserved) a herbivore, the one on the left a stag. Small kneeling man behind the herbivores beneath a star; small fillers between the animals' legs: a small horned animal(?), a plant(?), an unclear object ending in three points; and a star.

142 Ashmolean 1939.332: 27

Rolling on clay lump pierced with two stringholes, perhaps originally attached to a leather or textile surface.

W E.R. Sargon

142 Ashmolean 1939.332: 39

Impression on test strip fragment (drawn pl. VII).

W E. Ridge Sargon level

Buchanan 1966, p. 148: 792

28 × 33(?)

It is possible that nearly the whole design is preserved. Crossed lions, attacking goat and ibex on either side; hero on right.

143 REG 4442

TB 11028b

Two rollings on bulla fragment.

SS 815: Room 18, floor

Matthews 1991, no. 25

REG 7251

TB 14084

Impressions on 19 large bulla fragments, several with marks of thick cord and some with material surfaces. One has a string mark and the impression of a rounded object such as a knob (not a cylindrical peg), diam. c. 40 mm.

SS 945: East half of room 18, lowest fill ("trample")

D. Oates and J. Oates 1993, 185, 169 fig. 18

24 × 38

Lion crossed with caprid, rampant stag and horned animal on either side; terminal man in short dress with snake(?) around his head; fish, crescent and four dots in field. Heavy hatching on animal bodies.

144 Ashmolean 1939.332: 6

2 rollings on peg sealing, peg diam. c. 25.

W E. Ridge W. end - 1.60 m.

Ashmolean 1939.332: 17

2 rollings on peg sealing, peg diam. c. 30.

W E.R. Topsoil

Ashmolean 1939.332: 41

3 rollings on peg sealing, peg diam. c. 28.

W E. Ridge Sargon Bread Pit

23 × 37

Buchanan 1966 p. 148: 796, "jar mark" in error; not same seal as Wiseman 1962 pl. 31 i

Two lions crossed over each other attack respectively a stag and a goat. A man at the end is uncertain: the form shown could be derived from the overrolled hindquarters of the two animals.

145 Ashmolean 1939.332: 130

Square sectioned docket (63 × 27), chipped at one end; no holes or markings (drawn pl. V).

W CRH

Buchanan 1966, p. 149: 798

21(ext) × 41?

Crossed lions attack animal and stag on either side of them; on right, bullman or human-headed bull. Plant below the crossing point. Faint and worn.

146 Aleppo Museum 6333

End of square-sectioned docket, no holes, string or markings preserved.

W A 393. Field Register: same provenance as A392

BM 129370

Rollings on all 4 faces of a square-sectioned docket (56 × 31) with no marks or string impression (drawn pl. V).

W A 392. Museum record: Chagar Bazar A 302 [error for 392]. Field register: same provenance as A391 [=seal 219, BD level 2]

Wiseman 1962, pl. 32a, b; Collon 1987 no. 947; Curtis 1982, 81 fig. 61 lower

20 × 36

Two lions are crossed, each attacking a herbivore which is also attacked by a human. One lion has a frontal head and the other is in profile. Line between the lions, plant behind the right one.

147 1980 pottery register 166

TB 3151

Impression on shoulder of large jar with incised V-mark, orange/brown ware, incomplete, rim diam. 42 cm (see J. Oates 1982, p. 216 no. 78)

ER 111: Level 4 (ED III dest.), room 41, floor

J. Oates 1982, pl. XVIIa

19 × 34.5

Drawing J. Curtis. Rampant lion attacking rampant caprid, each threatened by one of two heroes who stand back to back, wearing short skirts; branch and unclear object behind them. One hero holds a mace; the other's hand is unclear. Small man with a pot on one side of the caprid and scorpion on the other.

148 REG 5614

Impression on bulla fragment with string mark on back.

SS 1032: Ash layer, west of room 20

16(ext) × 23(ext)

Drawing after H. McDonald. The orientation of this design is uncertain. Parts of at least two animals, small triangular shape. It is not clear whether the traces should be understood as crossed animals, distortion due to overrolling, etc.

149 REG 632

Impression, probably on peg sealing, peg diam. c. 30.

W Brak

Ht. 20(ext)

The orientation of this scene is uncertain. The dots would most naturally form the neck of a leopard, but then the legs next to them would be upside down. It may be better to see the dots as part of a scorpion's tail?

150 REG 620

TB 4008

Impression on bulla fragment with string and cloth marks, probably jar sealing.

ST 8: Trench D. Gully fill, probably Akk.

27(ext) × 34(ext)

Drawing J. Curtis. Two crossed animals, one inverted; nude hero; rosette; line behind hero.

151 REG 631

Two rollings on bulla fragment with flat end and curved surface on back - perhaps jar sealing?

W Brak

Ht. 32(ext)

I cannot join the two main rollings of this design. The upper one shows a human or bullman with raised arm facing a rampant animal with its head bent upward and other shapes; the lower rolling shows an animal's hindquarters and other figures possibly including a human and a scorpion.

152 REG 422

Impression on peg or bottle sealing fragment.

CH 209: BE. Level 6 destruction (ED III); Room 63, upper deposit.

22(ext) × 21(ext)

Rampant lion(?) crossing a hatched shape, perhaps a large goat falling downward?

153 BM 125860

Two rollings on convex bulla fragment, back broken.

W JNP

Wiseman 1962 pl. 31f; Iraq IX pl. XXIV:19, p. 150: Debris from Naram-Sin's palace

26(ext) × 55(ext)

Boehmer 1965, 151 no. 342

Two lions, with frontal heads and finely detailed manes, are crossed above a plant. Each attacks a herbivore, a caprid on the right, and a bull on the left, which is also attacked by a man, who is flanked by a scorpion and a star.

154 REG 621

TB 4009

Two rollings on bulla fragment with string and cloth marks, probably jar sealing.

ST 8: Trench D. Gully fill, probably Akk.

32 × 50(ext)

Drawing J. Curtis. Two lions with elaborate manes and frontal heads attack a plunging horned animal between them; one lion is crossed with a herbivore while the other is grasped by the tail (?) by a hero with a profile head with curly hair.

155 REG 4387

Impression on fragment of flat piece of clay.

SS 809: Room 18, main fill

Matthews 1991, no. 29

19(ext) × 29(ext)

Curly-haired hero grasps animal; inscription in at least two lines above double line, trace below, possibly overrolled.

- 156** REG 4386 TB 11031
Three (?) rollings on peg sealing fragment, peg diam. 25-30 mm.
SS 812: Room 18, fill above floor
Matthews 1991, no. 28
- REG 5881 TB 13014
Impression on bulla fragment with cloth (?) and string marks.
SS 1081: Room 23, fill above floor
26(ext) × 57(ext)
Inscription in three(?) lines above a double line above a scorpion; on left, rampant animal in contest with uncertain figure, bird(?) below; on right, lion crossed with animal, reversed animal, trace of lion mane?
- 157** Aleppo Museum 6779
Impression on small fragment with cord mark on back.
W B 210 S. JNP ASH R[O _] N. OF [ZIGG BY] FOOTING [_] BLACK [ASH]
13(ext) × 23(ext)
Inscription in at least two lines, above double line, above small-scale contest scene: hero with curly hair flanked by a stag and a caprid. On left, trace of hero(?); on right, trace of bull.
- 158** Ashmolean 1939.332: 127
Multiple overlapping impressions on peg sealing with flattish end, peg diam. 20.
W New Ct.
Ht. 17(ext)
The seal skidded on the clay leaving a badly distorted impression. The upper area shows a triple horizontal line, above a scorpion and no doubt originally below an inscription. To the right is a fragment of an animal(?), and to the left, a human in a short skirt and another animal. It is not clear how many rollings are represented by the fragments underneath. There seems to be part of the human's head and hatched bodies which may be parts of a lion's mane or a sheep's fleece, or both.
- 159** REG 7124 TB 14150
Two impressions on thick fragment, back rough.
SS 945: East half of room 18, lowest fill ("trample")
21(ext) × 35(??)
Contest frieze flanked by two lions; in the middle, at least one herbivore. It is uncertain if the traces on the left belong to the lion on the right, or, perhaps more likely, are a distorted trace of a hero in the centre of a group of five figures.
Terminal: scorpion below double line, no doubt inscription above.
- 160** REG 7103
Impression on bulla with pinched-up back and possible cloth impression (jar sealing?)
FS 2318: Upper fill disturbed by Mallowan
17(ext) × 12(ext)
Sketch after Brak Expedition. Row of rampant animals, perhaps crossed.
- 161** BM 125890
3 rollings on sealing originally attached to a cylindrical object which flared slightly at one end, either due to distortion, or because it was a bottle, or a flared peg; diam. 20.
W JNP
Wiseman 1962, pl. 31j
Ht. 28(ext)
The three rollings cannot be joined. The design was probably a crossed-lions contest with a hero at one end of the frieze. A small rolling probably shows the head and foreleg of a herbivore, but I cannot see how it fits with the other traces or even whether the animal is rampant or upside down.
- 162** REG 2933 TB 9006
Impression on small bulla fragment with string mark.
FS 583: Topsoil in area S of the level 5 buildings
12.5(ext) × 13
Profile head of bullman; unclear trace behind.
- 163** Aleppo Museum
Hard stone cylinder seal with mixed black and white patches, pitted surface.
W Museum record: [None]
26 × 13.5
Crossed bulls(??) flanked by lions(?); on left, bullman(?) looking back at star. Hard to understand because of pitted surface.

- 164 REG 1239** TB 6014
 Large docket with square section, 58 × 35 mm, with double string hole at one end only, four holes along one edge, and sealed on each face.
 FS 317: Near east wall of revealed doors building, below level 2 walls
 26 × 42
 Crossed animals, perhaps a lion and a bull. Man or bullman, holding a small figure in each hand. The left figure may have an animal's head and the right one may be a small human. The impressions are distorted and overrolled, and none of the details are clear.
- 165 REG 5293** TB 12005
 At least three rollings on sealing with impression of string and flared peg or bottle neck (diam. c. 22) on back.
 SS 675: Room 5, floor
 23(ext) × 50?
 The impressions are overrolled in a very confusing manner and the reconstruction given is not reliable. Two men with raised arms, at different scales; a star and dot; other traces may include an animal head and horns.
- 166 REG 5299** TB 12009
 Three rollings on bulla, perhaps peg sealing but peg and string marks not preserved.
 SS 693: Topsoil, in area above room 19
 25? × 34
 Bullman and hairy hero, both with profile heads, attack a full-face bullman between them: the first bullman holds a weapon in each hand, the hero has an implement which is bent at the end in one hand. Crescent-handled dagger in field to the left of the hero. Terminal: scorpion-man with raised hands. The bottom of the field as shown is not certain.
- 167 BM 125907**
 2 rollings on bulla fragment with back rough.
 W UNC
 ?
 Two fragments of a finely engraved design, one showing animal feet, the other a human arm (?) and what may be the frontal head of a human-headed bull.
- 168 REG 3895** TB 10004a
 Shaped bulla made around a double string; parts of four faces are preserved, all sealed, and one face is also inscribed. The ends are missing and perhaps half of the bulla is missing (unless it is REG 3896). Similar in form to a docket, but the faces are more carefully made and faceted.
 SS 544: Pit near surface, cutting a floor in the upper levels, and cutting wall on S side of room 6
 D. and J. Oates 1989, 211 pl. XXVIIa
- REG 3896** TB 10004b
 Bulla made round string, with 3 main preserved faces and 2 bevelled facets, all sealed; ends broken. Similar to REG 3895 (and possibly part of the same object), but not inscribed.
 SS 544: Pit near surface, cutting a floor in the upper levels, and cutting wall on S side of room 6
 20.5 × 37
 A full-face hero grasps a bull and a human-headed bull on either side; the bull is also menaced by a hero on the left, probably with a frontal head, who wields a short sword. On right, a full-face bullman in combat with a lion.
- 169 REG 7554**
 Two rollings on bulla with peg and string mark on back.
 W SS 2
 Ht. 21(ext)
 Drawing after H. McDonald. Row of figures, apparently including two bullmen and a hero; the form behind the hero is unintelligible. Various traces around.
- 170 REG 5264** TB 12006
 Two rollings on bulla with cord marks on back, conceivably from jar?
 FS 1834: Level 5 room 6, destruction material above floor
 25 × 44
 A figure, probably a bullman with a frontal head and a tail between his legs, grasps an animal on one side and a lion on the other; crescent(?) and star on either side of his head. The animal on the left may be crossed over another animal whose hindquarters are visible below. The lion is rampant above an animal, with the legs of two more animals, probably crossed, further to the right. Dot and long object in the spaces between these legs. If we have most of the design preserved, then the frieze may consist of a lion crossed with a horned animal on the right, with a further bull(?) and lion to the left; but there may be significant parts missing.

- 171** Ashmolean 1939.332: 72
 Impression on bulla with basket mark on back (drawn pl. VI).
W Brak
 Buchanan 1966, p. 141: 761
 17.5 × 21(ext)
 Bullman holds animal or lion upside down by its tail; human on left; tail, probably of lion, on right. In field, star at top, plant(?) and scorpion(?) below; unclear shape top right.
- 172** REG 5805 TB 13015
 Impressions on two faces of a docket fragment, perhaps originally square-sectioned, with 6-7 preserved number holes and string mark inside.
 FS 1920: Level 5 court 43, thin brown layer on floor, under burnt debris
 REG 5901
 Impression on bulla fragment with peg mark.
 FS 1920: Level 5 court 43, thin brown layer on floor, under burnt debris
 17.5(ext) × 31.5
 A hero or bullman siezes two inverted lions, both(?) with frontal heads, by their hindlegs; another bullman(?) between them. Three stars and a fly(?) in the field.
- 173** REG 7404 TB 14157
 Impression on test strip fragment.
 SS 1300: Surface scrape over west end of ridge, NW of SS
 22.5 × 33(ext)
 Two rampant lions with plunging stag between them; scorpion behind them.
- 174** Ashmolean 1938.103
 Two rollings on bulla with string marks and a deep groove, possibly a sealing attached to a jar whose curvature was too great to show.
W B.T. UNDER HURRIANS 1.5 - 2 m
 Buchanan 1966, p. 147: 788
 15.5? × 23?
 Hero in short skirt grasping rampant horned animals on either side; lion attacking left animal; linear object behind lion. The animal shown on the left is probably the same as the one shown on the right, but the scale appears different because of distortion in the rolling.
- 175** REG 5811 TB 13011
 Almost complete square-sectioned docket (45 × 28) with double string hole at one end; worn, no holes or markings.
 FS 1920: Level 5 court 43, thin brown layer on floor, under burnt debris
 17.5 × 28
 Rampant bull facing a rampant herbivore; lion(?) in combat with hero who wields a weapon; plant behind. Small shapes between the first two animals.
- 176** Ashmolean 1939.332: 209
 Impressions on the four main faces of a bulla which probably had a roughly pyramidal shape on a rectangular base; three holes apparently show where fine strings ran out from the middle.
W F 752. Field register: JNP Top
 Buchanan 1966, p. 147: 787: Palace area, sub-surface
 11 × 16
 Man in knielauf and three rampant animals; at least eleven dots. At bottom, four objects, either horned animal heads or jars with streamers. Buchanan suggests that the two eyes of the animal on the left of the man are visible; I am not certain this is so. Minute engraving. Scale 200%.
- 177** REG 4644
 Impression on tiny burnt clay fragment with possible string mark on back.
 FS 1645: Lev. 2 fill S of N wall of Grey Libn building; possible Mallowan disturbance
 Matthews 1991, no. 19
 9(ext) × 12(ext)
 Star on line; head (of bird?).
- 178** BM 125906
 Impression on curved face of fragment of plano-convex bulla.
W JNP

13(ext) × 14(ext)

A rampant lion, possibly (but not certainly) with a frontal head, faces a creature which seems to have a human body and a bull's head; a small animal, apparently horned, between them. On the left, perhaps a hero wielding a spear.

179 REG 622

Four rollings on peg sealing, peg diam. c. 12.

CH 409: Level 4 (Akk); rubble floor make-up, N end of street area.

Ht. 15(ext)

The three rollings cannot be joined. Each shows between one and three small human or animal figures.

180 REG 421

TB 3004

Impressions on docket, (78 × 29), with 3 holes in side.

CH 209: BE. Level 6 destruction (ED III); Room 63, upper deposit.

D. Oates 1982, 199

23(ext) × 50

Cf. Porada 1981, n. 61

Drawing J. Curtis. Human headed bull crossed with lion, both with frontal heads; bullman on left, rampant horned animal and nude hero on right, with further rampant horned animal and detached frontal lion head behind the hero. In field, small twist and curving line.

181 BM 125903

2 rollings on bulla fragment with rough back.

W JNP

Wiseman 1962, pl. 31i

20(ext) × 22(ext)

Two lions with profile heads are crossed under a dot, with a caprid on the right; perhaps originally a hero at extreme right.

182 Ashmolean 1939.332: 118

Impression on test strip fragment (drawn pl. VII).

W - 2.5 m New Ct.

Buchanan 1966, p. 149: 797

20(ext) × 20(ext)

A guilloche runs along the bottom of the design. I cannot tell whether there was another register below it. Above, two lions are crossed over, each attacking an animal at the side; dot above the crossing point, plant(?) beneath it.

183 REG 5839

TB 13005

Square-sectioned docket (59 × 32), with 2 string holes at each end, with cuneiform inscription on one face and a long curved groove on another. 4 small holes in the middle of one face (not like normal number holes). Largely complete with exceptionally clear seal-impressions, but surface damaged in places.

FS 1920: Level 5 court 43, thin brown layer on floor, under burnt debris

D. Oates and J. Oates 1993, 185, 169 fig. 19

24.5(ext) × 32.5

Crossed lions attack a rampant caprid on either side; hero in short skirt on right under scorpion. Triple dot above the crossing point. Guilloche band above. Bold clear engraving.

184 REG 628

Impression on peg sealing fragment, end broken, peg with angular section, diam. at least 13 mm.

CH 458: Level 6 (ED III); room 65, beneath CH 456.

32(ext) × 26(ext)

The design is in at least three registers. Above, two crossed lions each attacks a caprid (or perhaps a stag on the right); human (or bullman?) on the right. In the middle, at least four frontal lion heads. At bottom, unclear shapes, perhaps including a scorpion.

185 REG 4552

TB 11028d

Three rollings on bulla fragment with impression of cloth with string and knot marks, the whole stained green by copper deposit.

SS 549: Ritual deposit on pavement of court 8, in front of door to court 7

Matthews 1991, no. 26

REG 7159

TB 14154

Rollings on 2 bulla fragments with material impression.

SS 945: East half of room 18, lowest fill ("trample")

19 × 25

Design in two registers separated by a double line. Above: human, caprid, lion crossed with plant, stag, human. Below: three birds and two stars.

186 REG 5296

TB 12003

Three rollings on sealing with flat surface, grooves at right angles and knot marks on base; could have been attached to a box tied with string?

SS 922: Room 24, fill

D. Oates and J. Oates 1991, 143-4 pl. XXVIII f

14.5 × 29

Row of four animals in a contest frieze. The first may be a lion, from its tail; the second is indeterminate; the third has a head like a caprid and the tail of a bull; the fourth may be a sheep. On right, a rosette and part of another animal, probably not the lion(?). Underneath: guilloche band. The stylisation with much hatched detail is unusual, and so are the contorted postures of the figures.

187 Ashmolean 1939.332: 119

Three rollings on faces of what may be a docket fragment, perhaps square-sectioned with string and knot in the middle and a number hole(?)

W - 2.5 m New Ct.

Buchanan 1966, p. 146: 783

21(ext) × 30?

GMA 1751

The drawing has been made on the assumption that the whole width of the design is preserved, but this is not quite certain. The design is in two registers. Above, two animals confront each other: the one on the left may be a lion and is attacked by a man with a spear. Behind the man, unclear figure, perhaps a bird-demon. Three dots between the animals' legs. Below, row of animals, two of them caprids, the third a lion. Angular shape behind one animal's horns.

188 Ashmolean 1939.332: 71

Impression on bulla fragment with flat surface and groove on back.

W Burial Room - 1 m below burial level

Ashmolean 1939.332: 126

Impression on test strip fragment.

W CRH N EXT N - 1 m

30(ext) × 32(ext)

Buchanan 1966, p. 153: 812

I agree with Buchanan that the two impressions are of the same seal: the animal frieze, certainly, is stereotyped and could occur in any design in this style, but the contest is more unusual and faint traces above the hatched band in 1939.332(126) might belong to it. Design divided into two registers by a herringbone hatched band. Above, probably a contest scene with a hero and an animal; unclear object on left. Below, frieze of sheep or goats, cross above.

189 REG 5297

Impressions on bulla fragment with string marks on back.

FS 1834: Level 5 room 6, destruction material above floor

14(ext) × 18(ext)

Drawing after Brak expedition. Row of horned animals; unclear figures including birds(?) above. A second rolling shows a sheep(?) and a bird(?).

190 REG 7551

Impression on bulla fragment with possible string mark on back.

W SS 2

12(ext) × 23(ext)

Drawing after H. McDonald. Row of three horned animals; perhaps a design in registers separated by horizontal lines.

191 BM 125857

One rolling on convex surface of broken flat-bottomed bulla with groove and possible stringmark.

W Museum record: WP

Wiseman 1962, pl. 31c; Iraq IX pl. XXIV:10, p. 148: From the dump

17(ext) × 20 (ext)

A human-headed bull (?) is touched by a man in a short skirt. A rampant hooved animal and a fringe are above the monster, and a plant below. There is a leg(?) between the monster and the man.

192 REG 7158

Impressions on irregular docket(?) with 6 number holes (34 × 21).

SS 945: East half of room 18, lowest fill ("trample")

?

Sketch after H. McDonald. Animal, scorpion and frontal lion head; other traces.

193 Ashmolean 1939.332: 137

Two rollings on peg sealing with rounded end, peg diam. c. 20?

W CR.H. Lev. A

Buchanan 1966, p. 150: 804: "jar mark" in error

17(ext) × 32(ext)

Bull, with legs in front and behind it. Above, a bird-demon(?), conceivably above a small scorpion; a human, perhaps grasping the hindlegs of an animal (??); a lion's head, whose body, if it exists, is of unknown type.

194 Ashmolean 1939.332: 106

Two rollings on peg sealing with a large amount of string wrapped round the peg (no estimate of peg diam. possible).

W Royal Shaft

Buchanan 1966, p. 148: 795

22 × 27.5

A bull and a stag(?) with a rosette between them; scorpion and hero at right angles raising weapon above. The bull is attacked by a lion head. This might either belong to an Imdugud-bird of the type shown in GMA 1268, or else to a lion whose body is in the upper register, like 194. The latter case is more likely as the lion's hindlegs are visible to the right of the hero.

195 BM 126370

Joins 126372

W F 762. Field register: Crest Houses, Level A2

Iraq IX pl. XXIII:7, p. 146: belonging to no. 10

BM 126372

Joins 126370. Impression on test strip fragment

W CRH a(2)

Iraq IX pl. XXIII:10, p. 146: F 762, from debris in the earliest Sargonid level, CH

23 × 27.5

GMA 1399; Collon 1987 no. 888

Bullman stabs a lion which swoops down from above onto a small caprid; a small human stands on the lion's back. In front of the caprid, a bird-demon holding a plant, probably under a scorpion. Two dots near the caprid, crescent(?) above the bullman.

196 BM 126364

3 rollings on peg sealing, peg diam. c. 13. The end surface is irregular but there is a trace of what seems to be an end of string running away from the peg.

W Above 1938 shaft c - 5.50m

Iraq IX pl. XXIII:14, p. 147: NW of Eye Temple, Shaft 2 debris, - 5.5 m

22 × 26.5

GMA 983

Two men attack a caprid between them; fly(?) and lion above; behind, scorpion and dot above stag. There is a line, a star and two dots above the stag's back.

197 Ashmolean 1939.332: 217

Impression on thin bulla fragment.

W [None]

Buchanan 1966, p. 151: 807: "Oracle Room (Room 15, site CH, Ur III context)"

15(ext) × 17.5(ext)

Scale 200%. Design in three registers: top: two animal protomes and the leg of something, perhaps a table(?); middle: three detached lion heads; bottom: horned animal attacked by hairy hero with spear, and perhaps by lion on left. On right, tufted area, perhaps the mane of a large lion, above rosette. Fine minute engraving.

198 Ashmolean 1939.332: 70

Two rollings on peg sealing fragment, end missing; peg diam. c. 22.

W New East Ridge Top

?

The drawing shows two impressions which are on different facets of the bulla. I cannot join the two fragments of the design and I think that the two stags must not be the same animal. The orientation is not clear. Above: heads of stag and animal; plant; dot; other shapes. Below: man holding branch; stag; long curved horns(?).

199 Ashmolean 1939.332: 38

Rollings probably on docket fragment, square sectioned with grooves at the tip probably caused by squashing the clay together. No other sign of holes or marks.

W c - 5 [...] m [...] 1938 shaft

?

The drawing is an attempt to make a composite from the traces, but it does not make good sense, apart from a stag towards the right. The top may show overrolled legs of animals.

200 REG 7548

Rollings on 7 bullae, one with peg and string impression, the others with string marks.

W SS 2

27 × 35

R. Matthews et al. 1994, fig. 13:1

Composite from drawings by H. McDonald. Chariot drawn by long-eared equid. One man rides in the chariot, another climbs aboard and a third stands behind. Underneath, two fallen men, one near a circled dot, the other attacked by a man in a short skirt and by a bird.

201 REG 4391

TB 11024

Three rollings on triangular sectioned docket (30 × 18) with no string hole; 4 number holes with flanking grooves.

SS 813: Room 18, floor

Matthews 1991, no. 11

REG 7121

TB 14075

Triangular section docket (26 × 18) without string hole; three number holes with flanking grooves.

SS 949: East half of room 18, hard yellow-brown trample layer over part of floor

16(ext) × 32

A chariot with four wheels and a high front with two "eyes" is drawn by an animal. One man, holding reins, sits on the chariot; another stands behind.

202 REG 5772

TB 13010

Three(?) rollings on bulla with thick cord marks on back; bad surface.

SS 1070: Room 23, upper fill

24?(ext) × 20(ext)

No doubt same as R. Matthews et al. 1994, fig. 13:3

Design in two registers separated by a line; unclear overrolled area at the bottom. Above: chariot and part of the animal drawing it. Below: animal protome and plant(?); unclear traces on right. A rolling above the chariot seems to show part of a guilloche band, which may represent the top or bottom of the whole design. If the dotted line shown below the protome represents the bottom of the field, then this guilloche is most likely to have been placed at the top.

203 REG 7550

Impression on bulla fragment with peg mark.

W SS 2

15(ext) × 24(ext)

Drawing after H. McDonald. Design in two registers separated by a line. Below: row of horned animals. Above: perhaps a chariot scene with car, horned animal above unclear shape, man and unclear area on right.

204 Ashmolean 1939.332: 31

Impressions on burnt test strip (?) fragment.

W E.R. Spearh[ead] Leve[l]

Buchanan 1966, p. 149-50: 801

24(ext)

Buchanan understood this design as a boatgod with punting pole, and this is possible; but the forms now visible may have resulted from overrolling. Lion above crossed animals; human; area above head has shapes which Buchanan understood as a plant-headress; area to left understood by Buchanan as arms grasping a pole, but also possibly the overrolling of a top or bottom line.

205 Ashmolean 1939.332: 195

Two rollings on bulla fragment with string marks on back, perhaps peg sealing but no trace of peg survives.

W JNP Terrace Ho - 1 m

Moorey and Gurney 1978, no. 6

18(ext) × 35(ext)

GMA 1783

Bird or bird-demon and bull or bull-monster; two dots; the traces above may be partly overrolled. A second impression shows a boat with a paddle and what may be the torso of a hairy hero; pair of legs on the left; possible wings below. Moorey and Gurney publish a drawing which shows how these two rollings may be combined if, as is most likely, they belong to the same seal, on the assumption that the wings shown in both impressions are the same. I do not, however, feel that the prow of the boat then fits the traces visible above the bull's back in a satisfactory way. Various solutions can be proposed, according to different assumptions about overrolling and which parts are identical (e.g. the first rolling may not show the same bird at each end), but I prefer not to suggest which is most likely.

206 Ashmolean 1939.332: 114

Three rollings on bulla fragment with thick string mark on back.

W New Ct. - 2.8 m

Buchanan 1966, p. 150: 802

21? × 35?

GMA 1782

I have been unable to form a satisfactory composite for this design, especially the lower part. A boatgod holding a paddle bears a seated figure and a high object at the stern. In front of the boatgod, two dots, an animal and a bird-demon(?). Underneath, unsatisfactory composite forms which may represent, under the animal, a small boat with a person in it, and under the boatgod, a scorpion(?).

207 REG 4609

TB 11033

Two rollings on bulla fragment with crinkled top surface; could be peg sealing but no trace of peg preserved.

SS 585: Courtyard 8 floor, near room 30

Matthews 1991, no. 6

REG 7127

TB 14152

Impression on bulla fragment with possible string mark; joins 7128.

SS 944: East half of room 18, upper debris

REG 7128

TB 14153

Two rollings on bulla fragment with back rough; joins 7127.

SS 944: East half of room 18, upper debris

Ht. 18.5(ext)

The impressions of this design are not easy to reconcile with each other. Small table and man; man holding two horned animals by their hindlegs; irregular guilloche and dots below. On right, the drawing published in 1991 shows a possible trace of a scorpion, while an impression excavated more recently may show part of a large table and a circled dot. Another impression, probably part of the same seal, shows a seated man with a standing man behind him, with an irregular geometric pattern below including two circled dots (therefore just conceivably a chariot scene?). Another rolling on 7128 (which joins 7127) appears to show a linear geometric design and may therefore belong to another seal, but it is not impossible that it is part of the same one.

208 BM 125861

Test strip, broken at both ends; one rolling.

W BRAK T.C.

Wiseman 1962 pl. 30k; Iraq IX pl. XXIV:8, p. 148: Debris on the main road between the north and south mounds, T.C. area

18 × 18.5(ext)

GMA 982

A rosette, with dots between its petals, above a large quadruple spiral, with dots between its arms. On the left, traces of a scorpion and perhaps an horned animal (?); on the right an animal(?) above a seated man.

209 REG 4045

TB 10022

Impression on bulla fragment, back rough.

SS 549: Ritual deposit on pavement of court 8, in front of door to court 7

7(ext) × 12(ext)

Man with object to the left, conceivably the frontal head of a lion.

210 REG 5672

Impression on bulla fragment with groove on back.

SS 1018: Burnt debris, west of room 20

18(ext) × 21(ext)

Drawing after H. McDonald. Two men wearing short skirts.

- 211 REG 5265** TB 12002
 Impressions on 9 sealings, most with string marks but not intelligible. Two of them have concave surfaces on the backs; another has three rollings on three facets with the impression of string and a peg or other object on the back; this object had a flared head.
 SS 675: Room 5, floor
 Oates and Oates 1991, 137 fig. 5 (reversed); 143 pl. XXVIII d
 23.5 × 37
 Two men hold a small pot above a large pot on the ground; on the left, a man holds a pot above his head; on the right, two men facing the centre, the first extending both arms, the second without arms. Above this scene, an inscription with four signs of unusual form.
- 212 REG 3977** TB 10032
 Two impressions on bulla fragment.
 SS 549: Ritual deposit on pavement of court 8, in front of door to court 7
 17(ext) × 25(ext)
 Two humans, back to back; at a much smaller scale, human above each head. The small human on the right holds up a cup(?) towards a table surmounted by a pyramid of six dots. Another impression shows linear objects, perhaps part of a table at the larger scale.
- 213 REG 4546** TB 11020
 Clay cylinder, complete, hole not central. The cylinder was rolled carelessly over another cylinder, probably several times, to form an impression on it.
 FS 1717: Level 3 room 90.8, N end of 1990 site, floor
 Matthews 1991, no. 36
 29 × 15
 The design is unintelligible owing to overrolling, but it includes human and animal figures and a triangle of six small drillings.
- 214 REG 7367** TB 14156
 Three rollings on bulla fragment made around string; could be part of docket with 2 number holes and 4 or more sides; but this is not certain.
 SS 964: Courtyard 8, centre, deliberate fill
 Ht. 21(ext)
 Two men approach a third man, horizontal line and at least three dots above. The middle man seems to be pouring liquid from a cup over a conical object (?). On right, seated man, rosette and animal. This animal may be the same as the one which appears on the left, in which case its horns are curved over the left hand man.
- 215 REG 7555**
 Rolling on bulla with possible basket impression on back.
 W SS 2
 13(ext) × 20(ext)
 Drawing after H. McDonald. Man next to table; harpist and unclear traces on right.
- 216 Ashmolean 1939.332: 20**
 Three rollings on bulla with two flat faces on back at right angles to each other, with material impressions.
 W E. Ridge E. end [- 70 cm] below tablet
 Buchanan 1966, p. 153: 814 "Contract Rm?"
 10 × 17
 GMA 1755
 A seated man raises an arm to a table with an object on it; behind him an attendant with raised arm. On the other side of the table, a harpist with his harp resting on a stand. I do not see the pattern on the table leg shown in Buchanan's drawing, but he may be correct.
- 217 Ashmolean 1939.332: 192**
 Two rollings, perhaps on small peg sealing, end broken.
 W JNP Terrace Ho c. - 1 m
 Buchanan 1966, p. 153: 813
 21 × 27(ext)
 GMA 1754
 Man seated by table; perhaps another seated man beyond. On left, tall structure; below, herringbone band. Buchanan shows a decorative pattern on the table leg which I feel may be the result of a fingerprint. He describes the structure as a shrine.

218 BM 126367

Impression, probably on test strip fragment.

W CRH. N EXTN c - 1.50 m

Iraq IX pl. XXIII:1, p. 144-5: CH north end, 1.5 m below Sargonid floor

19 × 28(ext)

Table, approached by two men. The first man holds a large object like a pair of scales (?). Herringbone hatched band below.

219 Aleppo Museum 6299

End of docket, probably originally four sided. Inscription on two faces; trace of string marks.

W Field Register: same provenance as A391

Gadd 1937, fig. 2: A 393

Aleppo Museum 6334

Fragment with parts of 3 faces of a 4 or 5 sided docket. Part of a line of inscription on one face. 3 or more small holes and a groove across one edge. Double string mark inside.

W A 393. Field register: same provenance as A391

Gadd 1937, fig. 2: A 393

BM 131690

Docket with five faces (60.5 × 37), largely complete except chipped at ends; double string hole. Three lines of inscription on two of the faces; on the other side, five deep holes made with a stylus of plano-convex section and a long curved groove made with the same instrument; small pick mark; (drawn pl. V).

W Museum record: A 391. Field register: rubbish filling of a chamber in level II on SW side of CT

Mallowan 1937, pl. XIII B, p. 151: Chagar Bazar B.D. level 2, rubbish filling of room, n. 1: probably originally from level 3, p. 154 "turn of levels 2-3"; Gadd 1937, 178, fig. 2: A 391

46(ext) × 28.5

Collon 1987 no. 72; Curtis 1982 p. 81 fig. 61 (top); Loretz 1969 no. 68

Design in two registers separated by a cross-hatched band with dots. Above, a harpist plays next to a table and a seated man, an attendant at each end. Two dots, perhaps representing a vessel, behind the seated man. Below, two seated persons, each accompanied by an attendant, drink from a pot through straws. An extra attendant on the right. Spouted vessels (?) above the central pot and behind the right seated man.

220 REG 7547

Rollings on 7 bullae, 3 of them peg sealings.

W SS 2

24 × 32

R. Matthews et al. 1994, fig. 13:4

Drawing after H. McDonald. Design in two registers separated by a hatched band. Below: probably row of animals (heads not clear). Above: two seated men with table above dot between them; on left, harpist and unclear structure.

221 REG 5670

TB 13016

Two rollings on test strip fragment.

FS 1907: Burnt fill along outer edge of N wall of FS level 5 Temple

23(ext) × 31.5

Design in two registers separated by a double line. Above: two seated humans, each on a different kind of stool, face a table between them; dot and standing man behind them. Below: three horned animals (sheep?), and animal protome (?), at least two dots and a triangular object.

222 REG 624

TB 4010

Two(?) rollings on peg sealing with chaff marks on end, peg diam. c. 20.

CH 347: Lev. 5 (ED/Akk); ash layer N of room 54, E of room 52

19?(ext) × 25?

Drawing J. Curtis. Traces of three pictorial registers are visible but it is not clear how many overrollings are represented. It seems probable that the design was divided into two registers separated by a hatched band. The lower register is shown only in the trace (of a stool?) at the bottom. Above: two banqueting scenes: on left, table(?) or perhaps seat of human facing left who is not preserved; small attendant; vessel with drinking tubes; seated person. On right, beyond vertical line: two seated persons with table between them.

223 REG 7369

Two rollings on bulla fragment with string marks on back.

SS 964: Courtyard 8, centre, deliberate fill

?

Drawing after H. McDonald. Probably a design in two registers separated by a guilloche band, but the connection cannot be made between the two rollings. Seated person beside an unintelligible structure; groundline.

224 Ashmolean 1939.332: 5

2 rollings on clay strip.

W E.R. 3rd. Dyn. Level.

Ashmolean 1939.332: 8

2 rollings on faceted "package bulla" (drawn pl. IV).

W E.R. 3rd. Dyn. Level

20 × 28

Buchanan 1966, p. 152: 811; GMA 1752.

Design in two registers divided by a herringbone band. In the upper register, an eagle grasps two horned animals and a man sits by a table. The head of the eagle looks more like a bird than a lion. In the bottom register there are four animal protomes.

225 Ashmolean 1939.332: 152

Rolling on bulla fragment with flat base.

W Above 1938 shaft c. 5.50 m

Ashmolean 1939.332: 154

Two rollings on peg sealing with rounded end, peg diam. c. 20?

W Above 1938 shaft

Ashmolean 1939.332: 159

Two rollings on bulla fragment with fairly smooth ridged surface on back.

W Above 1938 shaft

Ht. 27.5

Buchanan 1966, p. 152: 809; GMA 1753

Buchanan is probably right to suggest that the impressions on these bullae all come from the same seal, but I think the attachment of the seated man to the rest of the design is insufficiently firmly established to make a single composite drawing as he has done. The small animal shown by him to the left of the eagle depends on his reconstruction of the juxtaposition of the fragments of the design. Lion-headed eagle, above horned animal, above human-headed bull; unclear traces on either side, including perhaps a human arm grasping a pole. I think the horizontal line shown in Buchanan's drawing under the eagle's tail is the result of an overrolling. Another impression (on the same bulla - 1939.332(159) - as a rolling of the scene described above) shows a seated man facing a table(?), perhaps inside a structure which is preserved behind and below him.

226 REG 5525

TB 13004

Impressions on square-sectioned docket (45 × 29) with double string mark at one end, worn and damaged with no number holes. 3 line cuneiform inscription on two faces.

SS 1005: Room 21, NW corner, red fill

D. Oates and J. Oates 1993, 185, 169 fig. 20

25(ext) × 31

Two horned animals, one a stag, fall downwards on either side of a lion-headed eagle which has a fish or bird (??) on one side of its tail and a dot on the other. Below: Human, lion and bull; small human or ape above a plant or rosette.

227 Aleppo Museum 6314

End of docket with five sides; no string or other marks preserved.

W [None]

20(ext) × 35(ext)

Design in two registers not kept clearly separate from each other. Above: lion, stag, eagle and unclear figure with a serrated profile; dot and fish(??) above the stag's head. Below: animal, lion and small motive between them.

228 REG 5674

TB 13007

Three rollings on bulla with string mark made round small flared peg or bottle with neck diam. c. 13 mm?

SS 1044: Ash layer, against pisé mass west of room 20

Ht. 23.5

Eagle with unclear shapes on either side above the hindquarters and head respectively of bulls; dot above lion hindlegs below. To the left of the lion, trace perhaps of a human foot? A small separate impression shows a stag's head.

229 Ashmolean 1939.332: 79

Two rollings, perhaps on peg sealing with rounded end, but no trace of the peg is preserved.

W E.R. Lowest [lev] in ash pit

Buchanan 1966, no. 803

21(ext) × 33?

GMA 1749

Design in two registers separated by a guilloche band; above, bird, head not preserved, flanked by two dots and no doubt by animals; below, lion, animal and rosette. The drawing does not show enough space between this animal and the rosette, so either the impression is overrolled, or the animal is a protome.

230 Aleppo Museum 6768

Impression on flat face of bulla fragment with back rough; 2 grooves on broken edge resemble the number holes of docketts, but the edge of the seal-impression never shows as clearly as this on the curved faces of docketts.

W B210 (S) JNP

22.5(ext) × 28(ext)

Design in two registers with no separator. Above: stag, scorpion, lion. Below: pair of horned animals flanking plant; wing. The trace above the wing might be part of a lion-head belonging to an Imdugud-bird, or not.

231 REG 5880

TB 13013

Three rollings, perhaps on peg sealing, but no trace of peg preserved.

SS 1085: Room 23, make-up under floor

Ht. 26

Lion-headed eagle grasps an animal on the right and no doubt originally another on the left as well; star below its tail. The animal on the right is also attacked by a bullman(?); dot between them. Another impression shows a fragment of a stag, apparently grasped by two arms.

232 BM 126318

Black, white and pale green serpentinite (M. Sax) cylinder seal.

W Museum record: F 709. From footings outdoor chamber nr S side New Ct. Field Register: from the footings of outdoor chamber, North of New Ct. JNP

BMQ X 1936 pl. XXXIII:1; Wiseman 1962, pl. 29e; Iraq IX pl. XXII: 13,14, p. 144: F. 709, Naram-Sin Palace, room 11, Early Sargonic floor adjacent to the footings

17.5 × 13-13.5

GMA 1237

Design in two registers separated by a horizontal line. Above: eagle grasping stag on side and caprid on the other; small man. Below: row of three animals and a forked stick.

233 REG 5292

Impression on bulla fragment with string mark.

SS 675: Room 5, floor

REG 5294

TB 12001

At least 7 rollings on sealing attached to peg tied with thick cord (peg diam. c. 20). End rough with chaff marks.

SS 675: Room 5, floor

21.5 × 29

Design in two registers separated by a hatched band. Above: eagle flanked by two animals (stag on the left); object to the right of the eagle may be part of its claw or something else, e.g. a fish or plant. Lower: Two horned animals and two dots.

234 REG 5771

TB 13009

Five rollings on sealing with flattish end, like peg sealing but no trace of peg preserved.

SS 1064: Room 23, upper fill under surface wash

21 × 26

Design in two registers separated by a guilloche band. Above: eagle grasps two animals; plant between them. Below: file of four animals, one of them a lion.

235 REG 4444

Four rollings on broken end of square-sectioned docket with string mark inside, partially burnt; possible number hole.

W Surface below HH

Matthews 1991, no. 7

19(ext) × 32(ext)

Design divided into two registers by a herringbone band. Above: two squatting humans or monkeys flank a plant(?), unclear objects behind them, possibly including eagle(?). Below: row of horned animals.

236 Ashmolean 1939.332: 123

Impression on test strip fragment (drawn pl. VII).

W CRH Ox Room

Buchanan 1966, p. 152: 808

28.5(ext) × 29(ext)

Design in two registers separated by a herringbone band. Above, two frontal heads, apparently of a hairy hero and a human-headed bull respectively; traces at the edges are no doubt parts of another head. Below, end of contest frieze with animal and lion; lion-headed eagle.

237 BM 126375

2 rollings on peg sealing fragment, peg diam. c. 25.

W East Ridge - 1.50 m

Wiseman 1962, pl. 31a; Iraq IX pl. XXIII:11, p. 148: ER, embedded in debris used for the foundations of the Sargonid building

20.5 × 21(ext)

Design in two registers separated by a line. Above, protomes of caprid and lion, and the head of a human-headed bull; below, rosette, goat or sheep, and wing of probably an eagle.

238 BM 125862

Probably distorted end of test strip; one rolling.

W JNP

Wiseman 1962, pl. 30i; Iraq IX pl. XXIV:9, p. 148: no context given

21(ext) × 24(ext)

Two protomes back to back: human(?) on the left, bull on the right; above them a rosette. Top left, probably an animal's leg; on right, unclear shape above two lion heads at different angles.

239 Ashmolean 1939.332: 84

Rollings, perhaps on square-sectioned docket with string mark in middle; no trace of holes or other markings.

W Copper Rm

Buchanan 1966, no. 806; GMA 1750

BM 126376

One rolling on bulla with string marks on back; similar to peg sealing but a vessel or flaring peg may be more likely. No flat end and no trace of peg.

W CRH N EX - 2M

GMA 980; Iraq IX pl. XXIII:13, p. 147: CH, pre-Sargonid rubbish near the foundations of room 6

26?(ext) × 39(ext)

Buchanan recognised that the London and Oxford impressions were made by the same seal, but I do not think he reconstructed the design correctly. In my drawing, a lion head is shown to the right of the plant, as it appears in the Oxford impression (the London impression does not show this area). Buchanan correctly saw that the rosette and lion head which are to the left of the bearded bull's head are overrolled on top of this area. He therefore rejected the lion head and substituted a proposed second human figure. Looking more carefully, however, I believe that the Oxford impression shows a lion head superimposed on another lion head, so that his second human should be rejected. On the other hand, this lion head to the right of the plant should not be the same as the one above the left bull, because (as his drawing shows) the bull should be longer than the head, even including its mane or ruff. Therefore the head to the left of the plant may be an extra one squeezed into a narrow space, like seal 184. Head of human-headed bull between two rosettes, above three (?-see above) lion heads, two of them with manes or ruffs, above two bulls back to back with a T-shaped object between them. On right, human next to a large concentric disk on a plant. A detail top left may be overrolled.

240 REG 4441

TB 11028a

Two rollings on fragment, possibly of peg sealing but no trace of peg survives.

SS 815: Room 18, floor

D. Oates and J. Oates 1991, 143 pl. XXVIIIe; Matthews 1991, no. 5

REG 7066

TB 14079

Three rollings on bulla fragment with string mark, generally similar to peg sealing but with no trace of the peg and an irregular concave end. Peg sealing ends are usually flat or convex.

SS 944: East half of room 18, upper debris

REG 7067

TB 14080

Impressions on 26 fragments, c. 25 mm thick. Most have no recognisable form, but some have stringmarks. One has the impression of a peg or other object with a bulbous head, diam. c. 40.

SS 945: East half of room 18, lowest fill ("trample")

22 × 32.5

Man in squatting position, one arm raised; below him, dot and what is probably a full-face bearded head. To right, scorpion and two lion heads above another lion head and a bull head; curved shape; further right, two squatting figures, perhaps protomes of horned animals, above a crescent. Terminal: uncased inscription in one line.

241 REG 7126

Two rollings on bulla fragment with stringmark on back.

SS 945: East half of room 18, lowest fill ("trample")

REG 7195

TB 14083

Impressions on 17 large fragments, mostly thick and shapeless. Three have stringmarks and the impression of a peg or other object with a bulbous head, diam. c. 30 mm.

SS 945: East half of room 18, lowest fill ("trample")

REG 7224

Impressions on 5 bulla fragments with string marks.

SS 949: East half of room 18, hard yellow-brown trample layer over part of floor

REG 7250

TB 14082

Impression on thick fragment, back rough.

SS 949: East half of room 18, hard yellow-brown trample layer over part of floor

23 × 32

Squatting man with raised arm above crescent, lion head below; to right, scorpion above lion head above bearded and horned head; to right again, lion head above bull head. Inscription in one line, uncased. A horizontal line is visible on all impressions about a third of the way up the field. The figures above and below this line are always the same, but the relative positions of the upper and lower fields are always different. This must mean that the seal was broken and mounted on a spindle, allowing the two halves to rotate on the spindle independently.

242 REG 3184

TB 10024

Triangular section docket with no string hole (25 × 18); three holes with flanking grooves on one edge.

SS 223: Top of fill in ceremonial complex

D. and J. Oates 1989, 211 pl. XXVII f; Matthews 1991, no. 1

REG 3974

TB 10029

Triangular section docket with hole at one end (32 × 21); four holes with flanking grooves on one edge (drawn pl. V).

SS 549: Ritual deposit on pavement of court 8, in front of door to court 7

Matthews 1991, no. 1

REG 3975

TB 10030

Triangular section docket with no string hole (32 × 18); six holes without flanking grooves on one edge.

SS 549: Ritual deposit on pavement of court 8, in front of door to court 7

Matthews 1991, no. 1

REG 3976

TB 10031

Triangular section docket with no string hole, broken; probably had at least one hole on an edge.

SS 549: Ritual deposit on pavement of court 8, in front of door to court 7

Matthews 1991, no. 1

REG 4002

TB 10023

Triangular section docket with no string hole (51 × 30); four holes with flanking grooves on one edge.

SS 549: Ritual deposit on pavement of court 8, in front of door to court 7

D. and J. Oates 1989, 204, 211 pl. XXVII b, c; Matthews 1991, no. 1

REG 4042

TB 10019

Triangular section docket with no string hole (28 × 21), chipped; three holes with flanking grooves on one edge.

SS 549: Ritual deposit on pavement of court 8, in front of door to court 7

Matthews 1991, no. 1

REG 4043

TB 10020

Fragment of triangular section docket, no holes or grooves preserved.

SS 549: Ritual deposit on pavement of court 8, in front of door to court 7

Matthews 1991, no. 1

REG 4388

TB 11023

13 Triangular section dockets with no string hole (length 22-33 mm); markings on edge as follows: 3 holes flanked by grooves (5 cases); 2 holes flanked by grooves (3 cases); 1 hole flanked by grooves; at least 3 holes, groove certainly missing on one side; probably 4 holes with flanking grooves (2 cases); broken, with at least one hole.

SS 813: Room 18, floor

Matthews 1991, no. 1

- 242 REG 4389** TB 11023
 5 Triangular section docket with no string hole and L-shaped mark on one side (length 31-39 mm); 1, 2, 3, or 4 holes without flanking grooves on one edge; one docket has 3 holes with the groove certainly missing from one side and possibly damaged by pick mark on the other.
 SS 813: Room 18, floor
 Matthews 1991, no. 1
- REG 4390** TB 11023
 Triangular section docket with no string hole (32 × 21); 2 holes with flanking grooves on one edge and 2 parallel grooves on base.
 SS 813: Room 18, floor
 Matthews 1991, no. 1
- REG 7216** TB 14073
 33 Triangular section dockets with no string hole (length 25-37 mm); holes on edge: 2 (5 cases, 4 with flanking grooves); 3 (13 cases, 12 with flanking grooves); 4 (6 cases, all with flanking grooves); 5 (2 cases, both without flanking grooves); 6 (2 cases, both with flanking grooves). Two broken dockets have at least 3 holes, with flanking grooves; two more are too broken for an estimate. One docket has five holes, without flanking grooves, and an arrow mark on the side.
 SS 945: East half of room 18, lowest fill ("trample")
- REG 7217**
 Docket (28 × 19); four holes with flanking grooves on one edge.
 SS 949: East half of room 18, hard yellow-brown trample layer over part of floor
 28(ext) × 54?(ext)
 Man with raised hand, surrounded by at least thirteen animal heads. I cannot tell whether the heads shown at extreme left and right are the same.
- 243 REG 4641** TB 11029
 At least three rollings on bulla with flat top and straight grooves on back.
 SS 585: Courtyard 8 floor, near room 30
 D. Oates and J. Oates 1991, 143-4 pl. XXVIIIg; Matthews 1991, no. 2
 22 × 34?
 Three rows of detached frontal lion heads; period of rotation uncertain.
- 244 Ashmolean 1939.332: 153**
 Impression, perhaps on test strip fragment.
 W Above 1938 shaft - 2 to 3 m
 Buchanan 1966, p. 144: 779
 Ht. 21?(ext)
 The line shown as the bottom of the field might be part of a straight member in the design; if so, the orientation is unknown. Buchanan understood this design as a man holding two pots in a framework, and this is possible; alternatively, the "pots" might be lion heads, perhaps with straight lines cut over them subsequently.
- 245 BM 125859**
 3 rollings on peg sealing with string mark and flat end, peg diam. c. 12.
 W _____ [illeg.] OF LARGE COURT + TO W. JNP
 GMA 979; Iraq IX pl. XXIV:16, p. 149-50: Sargonid floor of Naram-Sin's Palace, room 10
- REG 3979** TB 10008
 Impressions on four-sided docket, l. 33, double string mark, impressed cross on base.
 SS 549: Ritual deposit on pavement of court 8, in front of door to court 7
 D. and J. Oates 1989, 211 pl. XXVIIe: not three-sided
- REG 3980** TB 10009
 Probably a distorted square-sectioned docket with double string holes at one end (30 × 21); no markings.
 SS 549: Ritual deposit on pavement of court 8, in front of door to court 7
 D. and J. Oates 1989, 211 pl. XXVIIId; drawing p. 205 fig. 6 is erroneous
- REG 3981** TB 10010
 Impression on bulla, back rough.
 SS 549: Ritual deposit on pavement of court 8, in front of door to court 7
- REG 3982** TB 10011
 Two rollings on bulla fragment with stringmarks.
 SS 549: Ritual deposit on pavement of court 8, in front of door to court 7

- 245 REG 3983 TB 10012
Impression on bulla fragment, back rough.
SS 549: Ritual deposit on pavement of court 8, in front of door to court 7
- REG 3984 TB 10013
Broken docket with triangular section and originally at least one hole.
SS 549: Ritual deposit on pavement of court 8, in front of door to court 7
- REG 4392 TB 11025
6 square sectioned dockets (length 32-41) with string holes. Each has a cross and two parallel lines marked on the sides but they do not have number holes.
SS 813: Room 18, floor
- REG 4393 TB 11025
5 dockets with square section (length 30-35), all with string holes. Each has a cross and two parallel lines marked on the sides, and also number holes without flanking grooves: 5 holes (2 cases); 4? (once); 3 holes (2 cases); (one drawn pl. V).
SS 813: Room 18, floor
- REG 4394 TB 11025
7 square sectioned dockets (length 25-31) with string holes, each with L-shaped mark on side and further marks as follows: parallel grooves and 5 holes (1); parallel grooves and 2 holes (1); parallel grooves and 1 hole (2 cases); parallel grooves and no hole (1); 5 holes and no grooves (1); no holes or grooves (1). None of the number holes has flanking grooves.
SS 813: Room 18, floor
- REG 4395 TB 11025
Square sectioned docket with string holes (27 × 19); 5 holes without flanking grooves; no other marks.
SS 815: Room 18, floor
- REG 4396 TB 11027a
Fragment perhaps of square sectioned docket (26 × 20), two adjacent faces partly preserved, possible string mark inside. One face has traces of a cuneiform inscription and a shallow groove; the other may have had an L-shaped mark.
SS 815: Room 18, floor
- REG 4397 TB 11027b
Small fragment, perhaps of docket with no markings preserved (16 × 16), with two rollings and part of a cuneiform sign.
SS 816: Room 18, floor
- REG 4645
Two bulla fragments, one of them probably originally discoid.
SS 585: Courtyard 8 floor, near room 30
- REG 5291 TB 12004
Fragment of peg sealing with two rollings (diam. of peg impossible to estimate).
SS 675: Room 5, floor
- REG 7206 TB 14091-4
57 dockets with string holes and square sections (length 25-36); also 52 fragments. 26 dockets have an impressed arrow on the side and number holes as follows: 8 holes (1 case); 6 (5); 5 (3); 4 (1); 3 (4); 1 (1); no holes (1 case); uncertain (5). 17 dockets have an arrow mark and two parallel grooves and number holes as follows: 8 holes (2 cases); 5 (1); 2 (2); 1 (1); no holes (12 cases). Other types: arrow and single groove (1); L-shape and single groove (2); arrow and parallel grooves, with 5 holes on two different faces (1); 6 holes and parallel grooves (1); parallel grooves only (1); 1 groove (2 cases); cross, no holes or grooves (1); other fragments with uncertain numbers of holes. Number holes do not have flanking grooves.
SS 945: East half of room 18, lowest fill ("trample")
- REG 7207 TB 14091-4
10 square sectioned dockets with string holes (length 36-39): 6 with cross mark, 1 with long mark round bulla like crescent; 1 with large T-shaped mark; 1 with cross and 2 holes; 1 with cross and single groove.
SS 949: East half of room 18, hard yellow-brown trample layer over part of floor
- REG 7208 TB 14074
4 triangular sectioned dockets without string holes, with 2 (twice), 4 and 6 holes respectively, probably in each case with flanking grooves. No other markings.
SS 945: East half of room 18, lowest fill ("trample")

- 245** REG 7209 TB 14090
Two dockets, square sectioned without string holes or number holes. Each has a cross and one has a single groove as well.
SS 949: East half of room 18, hard yellow-brown trample layer over part of floor
- REG 7218
Two dockets: (35 × 20), 6 holes with flanking grooves; (30 × 16), 4 holes with flanking grooves.
SS 949: East half of room 18, hard yellow-brown trample layer over part of floor
Ht. c. 30 (ext)
D. and J. Oates 1989, 205 fig. 6 (reconstruction in error); D. Matthews 1991, no. 3.
At least five rows of detached frontal heads. The central row has the heads of human-headed bulls with beards and horns; the other rows have stylised lion heads. The period of rotation is unknown.
- 246** REG 7283
Impression on bulla fragment (20 × 17) with peg mark, apparently cut to form an oval "token" shape.
SS 944: East half of room 18, upper debris
Small
Sketch after H. McDonald. Frontal lion head.
- 247** Ashmolean 1939.332: 172
Impressions(?) on clay bulla, similar to test strip but thicker, with flat back.
W JNP Rm 9 - 2 to 3 m
Upper area: 12 × 30(ext)
The impression has been scored by crossed scratches and is unintelligible. The drawing shown is an attempt to make some sense of it on the assumption that it is a design in the Brak Style, but it may be entirely wrong. It is not clear whether there are two rollings or a single rolling of a design on two registers. Above: perhaps three animal protomes, with other forms to the left and upper right. Below, shapes, perhaps including the detached head of a lion or a human-headed bull.
- 248** BM 126363
3 rollings, probably on distorted test strip
W NEW EAST RIDGE W end in ash and debris layer c. - 2.25 m
Iraq IX pl. XXIII:12, p. 146: ER, west of room 7, black ash layer containing pre-Sargonid material under Sargonid wall foundations
19.5 × 25
GMA 981
Design in two registers separated by a guilloche band: animal protomes above and lion heads below.
- 249** REG 7209 TB 14090-2
Three square-sectioned dockets (length 25-27) with string holes at one end only. Each has a circle marked on one side and grooves on another as follows: 1 groove; 2 parallel grooves; 2 parallel grooves and an extra groove on a third face.
SS 949: East half of room 18, hard yellow-brown trample layer over part of floor
16(ext) × 35?
Row of perhaps four frontal detached lion heads; at least two humans in short dresses, oriented at right angles to the normal. Traces indicate that these humans may have been in opposed pairs with other humans.
- 250** BM 125863
One rolling on broken bulla fragment, slightly ridged at one end.
W JNP
Wiseman 1962, pl. 30j; Iraq IX pl. XXIV:12, p. 148: Pre-Sargonid debris beneath the floor of Naram-Sin's palace
24(ext) × 27(ext)
Design in two registers separated by a guilloche band; each register contains rows of human-headed bulls' heads at different angles.
- 251** REG 7549
Two rollings on bulla with possible peg mark.
W SS 2
18(ext) × 19(ext)
Drawing after H. McDonald. Design in two registers separated by a guilloche band. Above, frontal lion heads and rosette; below, trace of lion heads.
- 252** BM 125895
2 rollings on bulla fragment with convex surface and stringmark on back.
W JNP

20(ext) × 28(ext)

Design in two registers separated by a guilloche band. In the upper register, perhaps a bird-demon and a lion at right angles with its tail between its legs, but this is not certain. In the lower register, a row of lion heads. It is not clear whether there was another register below this.

253 REG 5806 TB 13012

Impressions on two faces at right angles to each other of a bulla fragment.

FS 1920: Level 5 court 43, thin brown layer on floor, under burnt debris

19.5(ext) × 43(ext)

The two rollings do not overlap but seem to join almost exactly. The diagonal dashed line shows the division between them. Design in two registers separated by a herringbone band, a guilloche and a horizontal line. Above: two animal protomes flanking a rosette; behind them, lion head and at least three animal heads, one of them a stag's. Below: row of detached lion heads.

254 Ashmolean 1939.332: 24

Three rollings on peg sealing, end broken, peg diam. c. 40.

W E.R. Top

Buchanan 1966, p. 151: 805; "jar mark" in error

Ht. 31(?)

The rollings run over each other in a very confusing way. The position of the top edge, and the reconstruction of the protomes at the bottom, are uncertain. Design in at least five horizontal registers: at top, contest including a hero and a lion; guilloche band; herringbone hatched band; row of bearded bulls' heads on their sides; row of animal protomes(?), apparently with a rosette at extreme right. Buchanan saw a lion's head among the bulls' heads, and this is not impossible or unlikely; but I think his "repeat of human figure at top(?)" is an error.

255 REG 4611 TB 11038

Impressions on three thick bulla fragments, one with a flat end, another with a possible cord mark.

SS 585: Courtyard 8 floor, near room 30

Matthews 1991, no. 4

24 × 28

Design in two registers separated by a guilloche band. Above: two rows of lion heads, including two scorpions; below: two rows of lion heads. The repeat is probably after three heads.

256 REG 7438 TB 14158

Two rollings on adjacent faces of a bulla fragment, made around a knot. It could be a docket with two number holes preserved, but this is not certain.

FS 1960: Level 5 court 43, thin layer on floor and under ash layer

22?(ext) × 29?

Four guilloche bands with a row of three (?) bison heads in the middle. It is not clear whether the trace at the top represents another register or an overrolling. Neither the top nor the bottom of the field is visible.

257 REG 5810 TB 13001

Almost perfect square sectioned docket (56 × 33) with double string hole at one end and 3 number holes.

FS 1920: Level 5 court 43, thin brown layer on floor, under burnt debris

REG 5840 TB 13003

Square sectioned docket, partly broken (51 × 36), with double string hole at one end and 3 number holes. 3 line cuneiform inscription on two faces with a horizontal groove underneath.

FS 1920: Level 5 court 43, thin brown layer on floor, under burnt debris

REG 5841 TB 13002

Impressions on square-sectioned docket (55 × 36), much of surface flaked off, double string hole at one end. At least 2, possibly 3 number holes. 2 line cuneiform inscription on one side.

FS 1920: Level 5 court 43, thin brown layer on floor, under burnt debris

D. Oates and J. Oates 1993, 185, 169 fig. 21

23(ext) × 50?

At least five horizontal guilloche bands. The circumference suggested is based on the irregularities of the loops, but it may not be correct.

258 REG 4044 TB 10021

Fragment of docket, triangular section with at least 3 holes and possibly a flanking groove on one side; no string mark preserved.

SS 549: Ritual deposit on pavement of court 8, in front of door to court 7

- 258** REG 7157 TB 14076
 Small docket with triangular section (27×13), no string mark, 2 number holes with flanking grooves.
 SS 945: East half of room 18, lowest fill ("trample")
 $11.5(\text{ext}) \times 22(\text{ext})$
 Guilloche. Under it is a heavily stylised area which might show a row of frontal heads, or even heads alternately inverted. It is however possible that the whole design is geometric.
- 259** REG 7125 TB 14151
 Rolling on bulla fragment with concave impression of material and string on back.
 SS 945: East half of room 18, lowest fill ("trample")
- REG 7225 TB 14155
 Impressions on bulla fragment, back rough.
 SS 949: East half of room 18, hard yellow-brown trample layer over part of floor
 $22(\text{ext}) \times 25(\text{ext})$
 At least four rows of "eyes" separated by horizontal lines; trace at side might represent human seated on stool.
- 260** Aleppo Museum 6767
 Two rollings on concave surface of bulla fragment with cloth and string marks on back.
 W JNP N. OF WALL RUNNING FR STAI[R?] B210 S
 Iraq IX pl. XXIV: 2, p. 148: dump
 $22.5 \times 23(\text{ext})$
 Design in two registers separated by a hatched band. Above: row of birds; below: row of animals.
- 261** REG 1236 TB 6024
 Impression on test strip.
 SS 176: Area north of SS building, under red clay layer, probably below upper levels
 D. Oates 1985, 173 pl. XXVIc
- REG 4607 TB 11037
 Impression, slightly overrolled, on test strip fragment.
 SS 414: E gate of court 8, floor in area of large stoneware jar
 Matthews 1991, no. 8
 19.5×21.5
 Design in two registers separated by a hatched band. Above: three birds and two dots. Below: three horned animals. The period of rotation of the figures is certainly three.
- 262** REG 1240 TB 6025
 Two rollings on large sealing with string marks and the impression of a rounded object, either a small jar or a peg knob curved in both dimensions (diam. c. 30-35 mm).
 FS 316: Fill of revealed doors building, level 3 [perhaps error?]
- REG 1479 TB 6026
 4 rollings, all indistinct, probably on peg sealing though the "peg" is not quite cylindrical (diam. c. 30 mm); end of sealing is rounded with chaff marks and a fibrous channel.
 FS 1107: Fill in phase 2 "vault" which cuts the Level 3 revealed doors building
- REG 1480
 Impression on bulla with stringmark.
 FS 1107: Fill in phase 2 "vault" which cuts the Level 3 revealed doors building
- REG 1481
 2 rollings on bulla with stringmark.
 FS 1107: Fill in phase 2 "vault" which cuts the Level 3 revealed doors building
- REG 1482
 Impression on irregular bulla.
 FS 1107: Fill in phase 2 "vault" which cuts the Level 3 revealed doors building
- REG 1483
 Two rollings on bulla with stringmarks on back which were wrapped round an object such as a peg (diam. c. 20 mm).
 FS 1107: Fill in phase 2 "vault" which cuts the Level 3 revealed doors building
- REG 1484
 Rolling on small bulla fragment, back rough.
 FS 1107: Fill in phase 2 "vault" which cuts the Level 3 revealed doors building

262 REG 1485

Two rollings on bulla with string mark.

FS 1107: Fill in phase 2 "vault" which cuts the Level 3 revealed doors building

REG 1486

Two rollings on bulla with string mark on back.

FS 1107: Fill in phase 2 "vault" which cuts the Level 3 revealed doors building

REG 1487

Two rollings on bulla with stringmarks on back, perhaps originally wrapped around peg.

FS 1107: Fill in phase 2 "vault" which cuts the Level 3 revealed doors building

REG 1488

Two rollings on bulla; no clear string marks.

FS 1107: Fill in phase 2 "vault" which cuts the Level 3 revealed doors building

REG 1489

TB 6027

Three rollings on probable peg sealing, rounded end, trace only of stringmarks on back.

FS 1107: Fill in phase 2 "vault" which cuts the Level 3 revealed doors building

REG 1490

Three rollings on bulla, perhaps with material impressions.

FS 1107: Fill in phase 2 "vault" which cuts the Level 3 revealed doors building

REG 1491

Two rollings on bulla, perhaps with string mark.

FS 1107: Fill in phase 2 "vault" which cuts the Level 3 revealed doors building

REG 1492

Two rollings on bulla, perhaps with string marks.

FS 1107: Fill in phase 2 "vault" which cuts the Level 3 revealed doors building

13 × 24?

Cf. D. Oates 1985, 166, 173, provenance in error

Design in two registers separated by a herringbone band. Above, row of five(?) animals. Below, guilloche. The engraving is minute and the impressions are all faint so it is difficult to be certain of the period of rotation.

263 REG 238

TB 1057

Three rollings, perhaps on a small peg sealing, but no trace of peg survives.

W ER 18:2: Level 2, area of loci 3 and 7, levelling fill (Agade period)

12.5 × 18?

Row of at least four animals in a strange contorted "dancing" posture; three dots among them; herringbone bands above and below. The circumference is given on the assumption that there are four animals; there might be more.

264 REG 3899

TB 10018

Two impressions on hollow bulla, similar to peg sealing but perhaps made round some other object.

SS 544: Pit near surface, cutting a floor in the upper levels, and cutting wall on S side of room 6

10.5 × 20

Lion attacks animal; human attacks animal, also attacked by another figure, perhaps human, but not very similar to the other human. Line behind this last figure and possibly part of it. Schematic linear engraving.

265 Ashmolean 1939.332: 180

Rolling on bulla with string mark and grooved end, possibly impressions of string or basketwork.

W JNP Ct. [...]

14(ext) × 20(ext)

Two animals rampant in opposition with two lines between them which are either their forelegs or a plant; on left, perhaps a lion. Linear stylisation.

266 Aleppo Museum 7756

White banded calcareous stone cylinder seal.

W Field Register: [possibly same as] F 708: Exit Room W of Tal Halaf Court c - 1.5 m JNP

16 × 9.5

Aleppo II 336

Crossed horned animals, third animal on left, human(?) on right. Linear stylisation.

267 BM 125899

2 rollings, probably on peg sealing, peg diam. c. 25.

W JNP

16 × 28?

Two goats and a stag in a frieze with a plant below and a terminal star and crescent. An unclear area to the left of the right goat may be overrolled and may have included a man or a lion originally.

268 BM 125875

Impression on two faces of bulla, perhaps originally a "flat bulla" like designs 286 or 370, but no trace of what it was attached to.

W JNP

23(ext) × 33(ext)

Two caprids rampant around a square; human figure on the left. Linear stylisation.

269 Aleppo Museum 7748

Shell cylinder seal, with surface missing along fault line.

W Field Register: Flag Staff site, top metre

27 × 14

Aleppo II 331

Two horned animals rampant in opposition above a stylised plant, bush or sheaf; lion on right, terminal tree.

270 Aleppo Museum 8361

Dark greenish fine stone cylinder seal.

W Field Register: New Patch just below surface JNP

Iraq IX pl. XXII: 9, 10, p. 144: F. 701, Naram-Sin palace, court 3

22 × 13

Boehmer 1965, 151 no. 366; Aleppo II 335

Two rampant horned animals are joined at the shoulder above a plant. Each is attacked by a rampant lion. Each lion looks back at a star-spade between them.

271 Ashmolean 1939.332: 4

2 rollings on peg sealing, peg diam. c. 17.

W E. Ridge Sargon - 1.80 below copper spear head. Frag 2.

Ashmolean 1939.332: 43

2? rollings on peg sealing, peg diam. c. 16, clay includes fragment of bone.

W E. Ridge Sargon - 1.80 m below copper spear head (3)

Ashmolean 1939.332: 48

2 rollings on peg sealing, may be part of same sealing as 43 but no join.

W E. Ridge Sargon - 1.80 m below copper s[pear head] Frag (1)

Ashmolean 1939.332: 69

Rolling on clay fragment with string mark.

W E. Ridge Sargon (1)

27 × 39(?)

Group of five contest scene. In the middle a man, probably nude, with a goat(?) and a lion on each side; terminal line. A mark round the lions' hindlegs occurs on two impressions and may be a flaw in the stone.

272 BM 125909

Bulla fragment with one flattish and one convex surface, both sealed; grooves across surface.

W JNP S. N OF HOUSE IN WALL COMPLEX

17(ext) × 22(ext)

Rampant lion attacks a rampant caprid; tree beyond. On left, unclear figure.

273 REG 3875

TB 10028

Impression on bulla fragment, back rough.

W Brak, surface

19(ext) × 22(ext)

Horned animal attacked by lion; on right, figure, unclear if human or animal.

274 REG 5167

TB 12012

Half of cylinder seal in black stone.

SS 675: Room 5, floor

17.5 × 9

Hero, horned animal and lion; wavy line behind lion.

275 Ashmolean 1938.8

Mottled dark brown serpentine cylinder seal.

W [None]

Buchanan 1966, p. 53: 263: Mallowan Khabur expedition

19 × 9

"Group of five": lion, caprid, human, caprid, lion; terminal branch. Flaw in the stone in the area of the second caprid's horn.

276 REG 4267

TB 11016

Straight-sided cylinder seal in black stone.

FS 1603: Above surface overlying level 3; possible Mallowan disturbance

D. Oates and J. Oates 1991, 143 pl. XXVIIIb; Matthews 1991, no. 30

20.5 × 12

"Group of five": lion, caprid, hero, bull, lion; dagger.

277 Ashmolean 1939.332: 3

At least three rollings on faceted "package bulla" (drawn pl. IV).

W FS level b [error?]

Ashmolean 1939.332: 13

2 rollings on oval convex clay lump with flat surfaces (wood or reed?) and string on the back.

W E. Ridge Contract Rm

Ashmolean 1939.332: 21

Impression on clay lump, back flattish with groove.

W E. Ridge Contract Rm

Ashmolean 1939.332: 30

2 rollings on faceted "package bulla".

W E.R. Contract Rm

Ashmolean 1939.332: 50

3 rollings on faceted "package bulla".

W East Ridge Contract Rm

Ashmolean 1939.332: 52

3 rollings on large convex faceted "package bulla".

W E. Ridge Contract Rm

Ashmolean 1939.332: 61

3 rollings on clay lump.

W E.R. Contract Rm

Ashmolean 1939.332: 64

3 rollings on faceted "package bulla".

W E. Ridge Contract Rm

Ashmolean 1939.332: 66

3 rollings on oval convex "package bulla" (drawn pl. IV).

W E.R. Contract Rm

Ashmolean 1939.332: 67

4? rollings on "package bulla".

W E.R. Contract Rm

Ashmolean 1939.332: 166

The impressions are unclear and the type and provenance of the bulla are different, but it does seem to be the same seal as the others. Four rollings on peg sealing, irregular end, thin string mark across sealed surface, peg diam. c. 30.

W - 2.3 m Room 9; Buchanan thought this was JNP but ER seems more likely as all other impressions of this seal are from there

18 × 24

Buchanan 1966, p. 53-4: 270

Group of five contest scene. In the middle a man, probably nude, with a goat and a lion on each side.

278 Ashmolean 1939.332: 78

Three rollings on bulla fragment with string and knot(?) marks, a groove, and material impression on back.

W FS [A?2??]

15.5(ext) × 26

Hero between two goats; terminal bird, probably clawing at least one of the goats.

279 BM 126322

White gypsum (M. Sax) cylinder seal.

W Museum record: F 704. Just below footing at centre of wall, New Ct.. Field Register: New Court, just below footing at centre of E. wall JNP

23.5 × 13

Eagle between two caprids; terminal plant.

280 Ashmolean 1939.332: 131

Rolling on hard unbaked clay block, trapezoidal, back rough (drawn pl. VII).

W CR.H. S. side. Lev A2

Ashmolean 1939.332: 196

Impression on face of hard unbaked clay block; back broken but with smooth channel (drawn pl. VII).

W JNP Terrace Houses

24(ext) × 40?

Buchanan 1966, p. 149: 800

Eagle between two horned animals. The attachment of the bird's left wing is not certain and it is not clear whether the trace above this wing should be seen as a second head or as an unidentified feature.

281 BM 125865

Impression on bulla fragment with stringmark and trace of smooth groove on back

W JNP. MO. HASSAN ASH ROOM N.S. 22 CO[URSE?]; Museum record: JNP Mo Hassan Ash room NE 22 courses

Iraq IX pl. XXIV:17, pl. LIII: 22, p. 150: Naram-Sin Palace, room 13, black ash, 22 courses below the surviving top of the wall, p. 213: B. 211

22(ext) × 29.5

Human in a flounced or hatched dress, perhaps holding a cup, and possibly with a headdress like that of the seated figure, faces a god in a horned headdress and a flounced dress seated on a stool, star between them, tree on the right, perhaps below a crescent or crescent-disk. Behind, a man in contest with a human-headed bull - it is not clear whether its head is frontal or in profile, but I would think frontal more likely. Individual, heavily hatched style.

282 REG 3894

TB 10003

Impression on distorted test strip, broken at both ends.

SS 544: Pit near surface, cutting a floor in the upper levels, and cutting wall on S side of room 6

3.6 × 3.5(ext)

A bullman with a plait ending in a curl fights a full-faced human-headed bull; long object between their legs. Upper right, an inscription in at least two lines; below this, a very obscure area which could represent a human at half-scale. It is not clear whether his "head" is part of the cuneiform. On the left of the design, a leg, perhaps human.

283 Aleppo Museum

Two rollings on bulla fragment, back rough, possible string mark.

W B 210 S TOP

Ht. 18(ext)

The two impressions cannot be joined though they probably belong to the same seal. Two human-headed bulls with frontal heads are flanked by two heroes. In the second rolling, a bull's body is flanked by a human leg (?) and an animal body. The original design may therefore have contained two separate contest scenes.

284 Ashmolean 1939.332: 171

Impression on bulla fragment, back rough.

W JNP Rm 9 - 3 m

Buchanan 1966, p. 54: 275

33(ext) × 25

Two human-headed bulls with profile heads look back at one another. A hero grasps the one on the left.

285 BM 126330

White/cream shell (M. Sax) cylinder seal. Surface worn and scratched.

W Museum record: F 722. E. Ridge Level 2

37.5 × 21.5

BM II 15

Two antithetic bisons, each grasped by a hero; lion fighting bullman(?). The bisons may have profile heads but this is not clear; the right hand hero may be nude with a frontal head but this is also uncertain.

286 BM 125892

Impressions on at least two faces of a bulla which was made around a double string. The original shape probably had two main faces and one or two small end faces (drawn pl. VI).

W W.P.

Wiseman 1962, pl. 31e

22(ext) × 30(ext)

Human-headed bull with profile head, looking backward at animal(?); on right, human grasping animal by the tail. It is not clear how these areas relate to each other. One impression shows them adjacent, but with a fold in the impression which may be the result of overlapping rollings; the other impression shows a limb to the right of the human-headed bull.

287 Ashmolean 1939.332: 128

Two rollings on bulla fragment with smooth end and string marks on back.

W New Ct. - 3 m

Buchanan 1966, p. 60: 313

16 × 33(ext)

At least three pairs of contestants: human and bull, bullman or human-headed bull; human and human-headed bull with profile head; lion and bull, bullman or human-headed bull. In the first and last cases discrimination depends on the forelimbs of the creatures with bull parts, and these limbs are not clear. It is not certain that the bull hindlegs shown on the left belong to the creature on the right. Precise small style.

288 Ashmolean 1939.332: 16

Three rollings on peg sealing (peg diam. 30) with smooth flat end; joins other piece (40); (drawn pl. III).

W E.R. below found. 3rd. Dyn. wall

Ashmolean 1939.332: 40

Impression on peg sealing joining previous piece (16).

W E. Ridge Topsoil

17.5 (inc. caps) × 25?

At least two, possibly three pairs of contestants. A hero fights a lion; a second hero fights a bull(?). It is not clear whether the outer traces belong to the same or other contestants. Note the careless cutting of the lion's tail. Plain caps top and bottom.

289 Ashmolean 1939.332: 122

Rolling on bulla fragment with string and material impressions.

W New Ct. - 2.3 m

18(ext) × 32(ext)

A nude hero grasps a bull(?) by the tail. Behind him, contest involving three figures, a lion on the right, a bull or bullman in the centre, and the foot, perhaps of a human or of a lion, on the left.

290 BM 125894

Rollings on three facets of a bulla fragment, bulla may have originally have been made round string or string and leather.

W WP

17(ext) × 42 (ext)

At least two pairs of contestants, hero or bullman with bull, and lion with bullman; the hero has his head turned back towards an inscription. Crescent above.

291 BM 125900

Impression on end of test strip.

W W.P.

Ht. 22(ext)

A rampant lion and an animal falling forward; star above. Unclear traces on left.

292 BM 125872

One rolling on convex surface of bulla with flat end and stringmarks; nature of object sealed is uncertain but apparently not a peg sealing.

W JNP

Wiseman 1962, pl. 31k

Ht. 29(ext)

Inscription in at least two cased lines, running the whole height of the field; full-face nude hero, fighting lion.

293 Ashmolean 1939.332: 163

Rolling on bulla with string mark and impression of object, either flared peg or bottle neck, diam. 20 mm or possibly much more.

W JNP Rm 9 - 3 m

Buchanan 1966, p. 59: 301: "jar mark" in error

32 × 28(ext)

Kicking lion in combat with a bullman; rampant animal on left. The drawing shows the bullman's right arm raised but this is not certain.

294 BM 125913

Impression on bulla fragment with cloth mark on back.

W UNC

25(ext) × 21(ext)

Hero attacked by kicking lion; unclear trace on left.

295 REG 5523

TB 13006

Rollings on three faces of bulla made around a folded corner of cloth tied with string.

FS 1890: Surface clearance, above level 5 room 42

25(ext) × 40(ext)

Crossed animals, at least one probably a lion; another rampant animal on right behind scorpion and nude hero in combat with a rampant animal.

296 Ashmolean 1939.332: 140

Impression on coarse clay bulla with chaff marks; back rough.

W - 2 m New Ct

26.5 × 28(ext)

Crossed bulls, attacked by lions on both(?) sides.

297 Ashmolean 1939.332: 135

Rolling on bulla fragment, perhaps with impression of jar rim.

W New Ct. c. - 1 m

Buchanan 1966, p. 56: 286: jar mark

25 × 33(ext)

Crossed bulls, attacked by a lion on the right. Traces on the left and on the right may each, or both, represent human arms grasping the left bull and the lion respectively.

298 Aleppo Museum 6764

Two rollings on bulla fragment with curved groove on back, perhaps jar sealing.

W JNP UP HILL TOP B210 S

Iraq IX pl. XXIV: 3, p. 148: CH sub-surface

BM 125869

Impression on bulla fragment with confused pattern of coarse stringmarks on the back, including a knot.

W Museum record: JNP

Wiseman 1962, pl. 311

29 × 50

Two pairs of crossed animals, probably in each case a lion crossed with a herbivore. A hero, whose feet are turned to the right, looks and reaches behind him at the right lion; a small rampant animal under a horizontal line, and another man to the right of him. Groundline.

299 REG 4889

TB 12011

Half of cylinder seal, in banded white translucent stone.

SS 881: Ash layer, lying over earliest upper level wall, above general area of room 24

22 × 13

Lion crossed with bull, both animals grasped by hero. A lion's tail and leg behind the hero must belong to another animal.

300 REG 7153

TB 14149

Impression on bulla fragment, back rough.

SS 949: East half of room 18, hard yellow-brown trample layer over part of floor

REG 7154

Impression on small bulla fragment with stringmark.

SS 949: East half of room 18, hard yellow-brown trample layer over part of floor

Ht. 23(ext)

Crossed lions(?); one lion seems to grasp(!) a pole, which on the basis of 7154, seems to end in a broad mace head. Good quality engraving.

301 REG 7439 TB 14159

Impression on bulla fragment with string marks.

SS 965: Courtyard 8, centre, lower deliberate fill above pavement

32(ext) × 30(ext)

Lion(?) crossed with bull; plunging horned animal on right. Good quality high relief; some overrolling on the lion's body.

302 REG 4445

Two rollings on peg sealing fragment.

SS 812: Room 18, fill above floor

Matthews 1991, no. 27

20?(ext) × 21(ext)

Rampant animals. The two fragments would join if the shape above the tail were understood as a fore-hoof, in which case the animals would be crossed; but this would yield rather a large cylinder.

303 Ashmolean 1939.332: 11

One rolling on broken bulla fragment with string mark.

W E Ridge. 3rd. Dyn.

25 × 45(ext)

Inscription column in upper half of field, with at least two lines. On the left, and partly running under the inscription, contest of a hero and a bull. On the right and behind the hero, traces, no doubt of another contesting pair.

304 Ashmolean 1939.332: 94

Three bulla fragments which do not join: (a) 2 rollings on possible peg sealing with flat end, but no trace of peg and string marks uncertain; (b) one rolling on fragment with grooves and ridges on the back, possibly made by coarse string; (c) one rolling with mark of string attached to a tapering object, either a flared peg or a narrow-necked bottle, diam. 25-30 mm.

W [None]

24(ext, inc. cap) × 52(?)

At least two pairs of contestants, bull and hero, and bullman and lion. It is not clear whether the bullman's head is frontal or in profile. It is not certain that the lion visible at each end of the drawing is the same figure. Inscription in at least two lines, in the field on both sides of the hero, at least partly set in a case. Plain cap at bottom; top missing.

305 Ashmolean 1939.332: 164

One rolling on bulla fragment with thick cord marks on back.

W JNP Rm 9 - 1 to 2 m

Ashmolean 1939.332: 177

One rolling on bulla fragment, back rough.

W JNP Rm 9 BF

Ht. 30(ext)

Buchanan 1966, p. 59: 305

Contest of lion and full-face bullman; bull, probably also in contest. One line of inscription, uncased or partly cased, in field to right of bull.

306 BM 125856

Peg sealing with string mark, peg diam. 30 or more. One rolling.

W TOP

Iraq IX pl. XXIV:15, p. 149: A. 103, debris of Naram-Sin's palace

20 (ext) × 26 (ext)

A bullman fights a lion with a frontal head. Behind the bullman, an animal, perhaps a bull. Behind the lion, a man in a knee-length dress holding a mace at his waist and an axe over his shoulder. The quality of engraving is extraordinary, especially in the details of the bullman's head which are not adequately shown in the drawing.

307 Ashmolean 1939.332: 202

Rollings on two main faces and one preserved edge of a lentoid bulla; the other edge and the ends are broken. I do not see any stringmarks.

W FS Top

Buchanan 1966, p. 76: 416

18(ext) × 40?

My reconstruction depends on the evidence of the rolling on the edge, which only covers the middle band of the design; this gives me a figure not seen by Buchanan. I see a three-figure contest with two bullmen fighting a human or part-human figure between them whose lower body is at an angle (this angle is confirmed by two impressions). It is not, however, certain that the figures shown at left and right of the drawing are the same; nor do I understand the resulting scene, which may indicate that I am in error. On the left, a standing human with a one-line inscription behind him.

308 REG 257

TB 1058

Impression on irregular bulla fragment, crushed grooves on back.

W ER

Ht. 20(ext)

2-line inscription, cased; on left, lion in contest with bullman, profile head; on right, hero. The lion has only one forepaw. The seal originally had a bevelled profile, cf. BM II 223.

309 Ashmolean 1939.332: 214

Rolling on plano-convex bulla fragment with flat base.

W F 761. Field Register: E Wall of JNP low down in Isa Hammo's trench & close to the wall

18(ext) × 17(ext)

Hero and lion in combat; second hero, probably wearing kilt.

310 Ashmolean 1939.332: 32

Rolling on bulla with string and material impressions on back, possibly jar sealing?

W E.R. Just below 3rd. Dyn. floor level

Buchanan 1966, p. 55: 281

21(ext)

Impression distorted horizontally. At least two pairs of contestants: hero and horned animal, crescent above; another hero(?) on left; lion(?) on right. Possibly trace of baseline.

311 Ashmolean 1939.332: 74

Impression on test strip fragment (drawn pl. VII).

W Centre bastion W. end JNP

Ht. 21(ext)

Lion in combat with bull(?).

312 Ashmolean 1939.332: 185

Impression on bulla fragment, back rough.

W JNP Sandwich R. Above footings

22(ext) × 20(ext)

Full-face bullman grasps lion by the tail.

313 BM 126373

Rolling on bulla fragment with thick string marks on back.

W [None]

Ht. 19(ext)

Inscription in at least three lines, perhaps only in the upper part of the field; full-face bullman, fighting lion.

314 BM 125889

Impression on bulla fragment with basket marks.

W TC

Ht. 15(ext)

Full-face man or bullman, possibly phallic, fights lion; cased inscription, probably in at least two lines.

315 BM 125911

Impression on bulla fragment with back rough.

W WP

22(ext) × 19(ext)

Rampant lion in contest with phallic figure, probably bullman.

316 Aleppo Museum 6763

One rolling on test strip fragment.

W JNP TOP CREST NEAR AGAG B210(S)

Matthews and Eidem 1993, 201-207, fig. 1; Iraq IX pl. XXIV:1, p. 148: Destruction debris in court 2 of the Palace

Ht. 30 (exc. caps), 33 (inc. caps)

Boehmer 1965, 160 no. 663

Inscription in two columns, each of two lines. On right, full-face bullman. On left, another full-face bullman fights a lion; behind the lion, a second lion tail indicates that the first bullman is also fighting a lion. Plain caps above and below.

317 REG 2204

TB 8014

Oval bulla, largely complete, with two main faces and a curved top, all three sealed. Base is hollow with a smooth wrinkled surface (leather?) and string marks. Bulla must have been attached to a folded corner of the material.

FS 392: Fill above Level 5 wall between rooms 1 and 3

Illingworth 1988, 98 fig. 10; D. Oates 1987, 190, pl. XXXVIII a, b

28.5 (exc. caps, 31.5 inc. caps) × 62

Two pairs of contestants, each including a lion with its head turned back. The opponent is a bullman in one case, and either a bullman or a hero in the other. Behind the lions, an inscription in three lines, cased, occupying the upper field; below it, a small lion. Plain caps top and bottom.

318 BM 131750

Impression on flat surface, thick cord mark on back.

W Museum record: FS a(2)

Ht. 14(ext, inc. cap)

Finkel 1985, 200 no. 4; Loretz 1969 no. 76, pl. XXXIX

Inscription in three lines; foot of human on left, hoof and tail of bull or bullman on right. Plain cap.

319 Aleppo Museum 6774

Fragment of oval bulla with two main faces and a curved top, all sealed; bottom is broken but may include string marks.

W WP B210 (S)

Iraq IX pl. XXIV: 6, p. 148: Naram-Sin palace

24.5(ext, exc. cap, 26 inc. cap) × 37(ext)

Inscription in two columns, each of three lines, cased. On left, lion, in combat with full-face bullman; on right, trace of full-face hero. Good quality engraving.

320 BM 126378

Rolling on slightly concave face of bulla fragment with smooth but uneven back.

W ER Sargonid level

Ht. 23 (ext)

Inscription in at least two lines; nude hero, full-face, fighting lion. Top line over inscription only.

321 BM 126365

Two rollings on a largely complete bulla with cloth(?) and string marks. The clay was probably wrapped round a knot. The function of the object is not clear, but it may have been attached to a jar as the flattish cloth(?) surface is slightly concave.

W F758. Field Register: Old Court, in black ash above footings. JNP

Iraq IX pl. XXIII:18, p. 147: Naram-Sin Palace, court 3, black ash debris on floor

23 × 40.5

Boehmer 1965, 160 no. 651

Two contests, each showing a hero, with his head turned back, fighting a lion. Behind the hero, cased inscription in two columns, each of one line, occupying the full height of the field.

322 BM 125918

Rolling on small bulla fragment with stringmark on back.

W F.N.P. S OF W[C] HO

Ht. 20(ext)

A hero with a double belt holds a lion upside down and places his foot on its back; behind, fragment of an inscription.

323 Ashmolean 1939.332: 144

One or two rollings on fragment with string and reed (?) marks.

W New East Ridge, Top.

Ht. 18(ext)

Inscription in at least two lines, possibly running the whole height of the seal; man, probably in a contest. The lower right area looks overrolled.

324 Ashmolean 1939.332: 188

One rolling on bulla fragment with wrinkled back, perhaps with string mark.

W JNP Rm 9 - 2.9

Ht. 22(ext)

Naked full-face hero, no doubt in contest; inscription in at least two lines, apparently not cased on left.

325 BM 125916

Impression on distorted flat broken fragment of clay, possibly part of a test strip.

W WP

Ht. 28(ext)

Nude hero, possibly full-face, grasping a bull(?) by the tail; behind, a two-line inscription, which possibly does not run the whole height of the seal, and which is not cased on either side; to right, trace of an animal or bullman.

326 Ashmolean 1939.332: 186

Impression on test strip fragment.

W JNP Old Ct

Buchanan 1966, p. 67: 359

11(ext) × 21.5?

Two seated figures, each sitting on a different kind of stool; between them, a standing person perhaps holding an implement over one shoulder. On the left, two standing humans (?).

327 Ashmolean 1939.332: 170

Three rollings on bulla fragment centred on string mark; similar to docket but not as regularly formed and no special markings.

W JNP T Halaf Ct Top M

Buchanan 1966, p. 67: 358

20?(ext) × 47

Two seated persons, each sitting on a different type of stool or chair; the right hand one, at least, has a horned headdress, and the left hand one holds a pole. Between them and behind them, two standing persons facing right. It is not clear whether the bar shown under their feet is a part of the design or whether it is the result of two rollings, the lower showing only the upper edge. Another possibility is that it is the impression of a plain cap.

328 Ashmolean 1939.332: 169

Rolling on bulla, perhaps "package sealing" with string marks and material impression (see also seal 388).

W R. S of T. HALAF Ct. JNP

Buchanan 1966, p. 66: 357A: probably area of Courts 3-4, Akkad "Palace"

Ashmolean 1939.332: 203

Rolling on bulla with crinkled material impression and string mark on back (see also seal 388).

W F 759

Buchanan 1966, p. 66: 357A: "Brak F759 (west side of Akkad "Palace", top fill - perhaps Ur III context)"

26 × 43

Two seated persons, each sitting on a different type of stool, the one on the left apparently holding something. Between them and behind them, standing persons facing right. Crescent in upper field.

329 Ashmolean 1939.332: 208

Three rollings on a bulla which lay on the shoulder of a jar with stringmarks in the neck area; possibly joins BM 126498.

W F 754 -1.20. Field Register: Long Room E of New Court - 1.20 m JNP

Buchanan 1966, p. 67: 365: jar mark; Palace room 9, fill

BM 126498

Three rollings on a bulla which lay on the shoulder of a jar; string marks in the neck area; possibly joins Ashmolean 1939.332: 208.

W ROOM II RUBBISH ON NARAM S[IN?] FLOOR. Museum record: BRAK. Rubbish Naram Chamber Floor II

22 × 40(ext)

Two figures sit back to back with one line of uncased inscription behind them; the figure on the right holds a cup(?) from which a stream flows to the ground; crescent above. On right, a tree and part of a standing human, facing right.

330 Ashmolean 1939.332: 175

Two rollings on peg sealing, end missing (peg diam. c. 40?).

W JNP Room S of New Ct.

Buchanan 1966, p. 67: 363: "jar mark" in error

- Ht. 20(ext)
Two seated persons drink through tubes from a jar between them under a crescent (-disk??). On left, human head and fan(?). On right, unclear traces, perhaps of a plant or an arm.
- 331** Ashmolean 1939.332: 147
One rolling on flat bulla fragment, back rough.
W JNP Rm 9
Ht. 19(ext)
Inscription in at least one line; human holding fan; trace of second human.
- 332** Ashmolean 1939.332: 0
Impression on very thin clay fragment, almost like an envelope piece.
W [None]
14(ext) × 15(ext)
Man holding straight object; fan(?) behind him.
- 333** BM 125881
2 rollings on bulla fragment whose back may show the impression of material drawn over a jar neck and tied with string.
W [JNP]; Museum record: JNP
22(ext) × 44(ext)
Two seated figures back to back; groundline.
- 334** Aleppo Museum 3765
White calcareous stone(?) cylinder seal, pitted surface.
W Label: F 716. CENTRE BASTION EXTREME W. END JNP on top of denuded wall face
25 × 13
Aleppo II 392
Two seated figures facing a pot with three tubes on a pot stand or table between them; standing attendant between this pot and the right hand figure.
- 335** BM 125794
Ceramic? (M. Sax) cylinder seal, grey.
W Field Register: Brak WP
Iraq IX pl. XXII: 5,6, p. 143: B. 806, Debris of Naram-Sin's Palace
24.6 × 12-13
BM II 243; Boehmer 1965, 188 no. 1622
Two seated men in long robes each raise a hand (with cup?) to a branch between them; tree behind them. Surface bad over right hand figure.
- 336** Ashmolean 1939.332: 56
Impression on bulla fragment with a smooth back.
W E. Ridge Sargon below copp[er] spear hd
Buchanan 1966, p. 67-8: 366
17 × 29.5
Tree or standard and seated man; behind, an unclear figure which may possibly be a large horned animal. Buchanan thought it was more likely to represent a lion beneath two snakes and this is possible. The small branches on the standard shown in his drawing are, in my opinion, a surface distortion on the impression (cloth mark or fingerprint?), and not part of the original design.
- 337** Aleppo Museum 7757
White marble(?) cylinder seal, hole not central.
W Field Register: [possibly same as] F. 718 [no prov. given]
16 × 8.5
Aleppo II 403
Two horned animals, each beneath a crescent, approach a tree.
- 338** Ashmolean 1939.332: 191
Impression on bulla fragment with string marks and crumpled material surface on back.
W JNP Packing N. [SID??]E OF ZIGG
Buchanan 1966, p. 74: 404: "JNP, packing N. Terrace"
18(ext) × 39(ext)
Row of items: a star-spade; a plant; a scorpion; two entwined snakes; and an animal(?).

339 Aleppo Museum 6772

Impression on thick bulla with back rough; possible string marks.

W B210 (S)

22 × 33(ext)

Probably two pairs of standing humans, one pair flanking a tree, unclear object between the others.

340 Ashmolean 1939.332: 85

Two(?) impressions on bulla fragment; back rough.

W T.H.Ct

Ht. 15(ext)

Fragment of inscription in at least two, very likely three lines. The remaining traces, showing a branch and perhaps a face, are probably from a second rolling.

341 BM 125917

Rolling on convex surface of bulla fragment with flattish end; on back oblique groove and thick stringmarks. Probably not a peg sealing.

W FNP S OF W.C. HO

16(ext) × 24(ext)

Row of three figures, at least two of them human. Damaged and unclear.

342 Ashmolean 1939.332: 93

Rolling on bulla fragment with groove and flattish surface on back.

W T.D. Top

12(ext) × 35(ext)

Head of man facing two men with raised arms; unclear shapes on left and right (=horned headdress??)

343 Mallowan Photographs II 701

Impression on baked clay tablet.

W [Unknown]. Field Register: Room in the SW corner of CT in wh. the uninscribed bullae were found in a level corresponding to CT(a) in period III

Mallowan 1937, fig. 14:5, p. 137: A397, Chagar Bazar site BD, level 2 (dated from this object, p. 115)

22(ext) × 38?

Boehmer 1965, 167 no. 879

Unfortunately I have been unable to locate this object, which is one of the most important pieces of Akkadian glyptic from Syria. There is a photograph of it in the British Museum (Mallowan Photographs II, M701) and my drawing is based on this; all other information is from Mallowan's publication. Mallowan's drawing, based as it is on the original object, should be treated with respect. "Battle of the Gods": one god with a horned headdress looks backwards and seizes another god with a horned headdress by the beard. In Mallowan's drawing, this second god is shown holding a human head: this seems unlikely to me and I cannot confirm it from the photograph. On left, another god with horned headdress, looking backward; this figure may be the owner of the arm at extreme right which grasps a frontal headed bullman or hero who grasps a mace. There may be some overrolling in this area. Between this figure and the first god, a god with horned headdress in a long dress, apparently standing on a low platform, unclear object behind him.

344 REG 3897

TB 10017

Rolling on bulla with string and material impressions on back, perhaps material wrapped round jar neck.

SS 544: Pit near surface, cutting a floor in the upper levels, and cutting wall on S side of room 6

21(ext) × 36(ext)

"Battle of the Gods": human with his arm behind his back, grasped by another human who may be wearing a dress which is open in front to reveal his leg. Other human(?) figures on either side. Faint impression.

345 REG 7156

TB 14148

Two rollings on bulla fragment with two faces at right angles.

SS 945: East half of room 18, lowest fill ("trample")

Ht. 15(ext)

The style of the two impressions is the same so they probably belong to the same seal; but I cannot join them. Upper impression: two naked humans, each grasping a mace, facing another human between them. Lower: Two humans, probably back to back with plaits ending in curls, belts, and lines running over their hips; the left hand human grasps a figure of uncertain nature. Very high quality engraving with fine detail.

346 REG 3177

TB 10007

Four rollings on sealing with matting or basket impression on back.

SS 502: Court 8, fill adjacent to the Facade, north side

- 346 REG 3978 TB 10006
 Impression on bulla fragment with stringmark.
 SS 549: Ritual deposit on pavement of court 8, in front of door to court 7
- REG 4003 TB 10014a
 Two rollings on fragment with possible cloth impression.
 SS 549: Ritual deposit on pavement of court 8, in front of door to court 7
 D. and J. Oates 1989, 205 fig. 7, 211 pl. XXVIa
- REG 4004 TB 10014b
 Impressions on bulla fragment with possible cloth impression.
 SS 549: Ritual deposit on pavement of court 8, in front of door to court 7
- REG 4005 TB 10014b
 Impressions on bulla fragment with possible cloth impression.
 SS 549: Ritual deposit on pavement of court 8, in front of door to court 7
- REG 4006 TB 10014b
 Two rollings on bulla fragment.
 SS 549: Ritual deposit on pavement of court 8, in front of door to court 7
- REG 4007 TB 10014b
 Rollings on bulla fragments.
 SS 549: Ritual deposit on pavement of court 8, in front of door to court 7
- REG 4008 TB 10014b
 Impressions on bulla fragments.
 SS 549: Ritual deposit on pavement of court 8, in front of door to court 7
- REG 4009 TB 10015a
 Impression on bulla fragment with string and cloth(?) impressions on back.
 SS 549: Ritual deposit on pavement of court 8, in front of door to court 7
 D. and J. Oates 1989, 205 fig. 7, 211 pl. XXVIc
- REG 4010 TB 10015b
 Impression on sealing fragment.
 SS 549: Ritual deposit on pavement of court 8, in front of door to court 7
 D. and J. Oates 1989, 205 fig. 7, 211 pl. XXVib
- REG 4449 TB 11026
 Impression on bulla fragment with string and reed or wood impressions on the back.
 SS 812: Room 18, fill above floor
- REG 4553 TB 11026
 4 rollings on two fragments of a large peg sealing, peg diam. c. 25. A third sealing with 2 rollings may have belonged to the same sealing, but it does not join. A fourth sealing has straight grooves, possibly string marks, and one rolling.
 SS 585: Courtyard 8 floor, near room 30
 D. Oates and J. Oates 1991, 143 pl. XXVIIc
- REG 7122 TB 14078
 Impression on broken fragment.
 SS 945: East half of room 18, lowest fill ("trample")
- REG 7123 TB 14078
 Impression on broken fragment.
 SS 949: East half of room 18, hard yellow-brown trample layer over part of floor

4.05 × 8.8

D. Oates and J. Oates 1991, 136 fig. 4; Matthews 1991, no. 34

The drawing is a composite from many impressions, most of them faint, and many of the details are unclear. Two figures wearing flounced dresses are seated facing each other, each extending a hand to a rampant horned animal. The patterns on their stools and apparently also on their dresses are different. The figure on the left may be holding a cup but this is not certain; the headdress is unclear. The figure on the right has a horned headdress and may be holding a mace; again, this is not certain. Each figure has a long plait ending in a curl, and each of them has feet and stool mounted on two animals, sheep(?) on the left and goats(?) on the right. In the upper field between them is an inscription in two lines with a vertical divider: there is no good impression of the second line and the forms shown are conjectural. To the left there is, probably, a star-spade, but it is possible that it should be understood as a third line of cuneiform. In front of the left seated figure's head there is a secondary scene with its own groundline: on the right, a naked man with one arm raised, the head not preserved; on the left, an unintelligible figure (birdman??). Behind the left seated figure there are two more figures, first a woman(?) in a long fringed dress, with clasped hands and a long plait; behind her, a god with a horned headdress and plait, wearing a short dress turned up in front; he bears a mace in each hand. The weapon over his shoulder was shown as an axe in the drawing originally published. I do not think this is correct but it is not impossible. Behind this figure is a second scene, of the Battle of the Gods: a god with a horned headdress and rays, but no plait, in a short dress, attacks a god with a horned headdress, plait and short dress, who is bending forward and looking backwards. He holds a bent mace.

347 REG 983

TB 5089

Impression on bulla fragment, back rough.

SS 113: Area north of SS building, red grey fill with libn lumps in upper levels

23(ext) × 22(ext)

An archer fires towards a tree or bush; lion in "hill" behind him. The drawing makes it look as though the archer has a tail, but parallels show that he is actually carrying a quiver with a long tassel. Best quality engraving.

348 REG 2033

Impression on bulla fragment with groove on back.

FS 1322: Pit in area east of revealed doors building

13(ext) × 33(ext)

Drawing after Brak expedition. Three figures, at least one is certainly an animal.

349 Aleppo Museum

Three rollings on jar sealing with ridged profile.

W B210 (S) ASH ROOM 20 COURSES [BELOW] TOP. N SIDE [C?]RT WALL E. END

19(ext) × 24(ext)

Kneeling human faces animal; unclear object above.

350 Ashmolean 1939.332: 216

Two rollings on bulla fragment with very thick cord marks on back.

W [None]

Buchanan 1966, p. 63: 333: "Oracle Room (= Room 15, site CH - Ur III context)"

32(ext) × 26(ext)

Two dogs look up at a man riding on a bird; man on right, holding a bent linear object to the bird's tail. The flying man's head is not shown in Buchanan's drawing.

351 Ashmolean 1939.332: 205

Rolling on bulla fragment with string mark on back.

W F 760. Field Register: Terrace Houses (top). N area JNP

17(ext) × 25(ext)

Chariot drawn by equid; unclear trace above the chariot.

352 BM 126366

Impression on bulla fragment with stringmarks and smooth surfaces on the back.

W F756. Field Register: Bead Room in packing attached to face of footing E. side of room JNP

Iraq IX pl. XXIII: 6, p. 146: F. 756, Naram-Sin Palace, room 22, burnt debris on floor

30.5 × 32(ext)

Boehmer 1965, 169 no. 928

Seated human, perhaps facing a table(?). Behind him, a man bends forward to grasp an object; crescent and other shapes above. Unclear object above the seated man's hand.

353 Ashmolean 1939.332: 134

Impression on concave surface of thin bulla fragment with fine cloth marks.

W New Ct. - 2 m

Buchanan 1966, p. 141: 762; Iraq IX pl. XXIII:2, p. 145: Naram-Sin palace, court 2, floor

19(ext) × 20(ext)

Couchant(?) bull below crescent and star; axe-shaped object on right.

354 REG 1080

TB 6019

Two rollings on thick bulla fragment with string marks on back.

FS 306: Level 2 construction and level 3 fill above SE area shown on plan D. Oates 1987, 179

25 × 35(ext)

Seated man in striped skirt holds out hand to a bull; traces on left might be another man in a striped skirt. Scorpion above the bull; unclear object between the man and the bull.

355 BM 125793

Grey-green calcite, sparry calcite (M. Sax) cylinder seal.

W Field Register: half way up hill, on upper floors of private houses JNP

Iraq IX pl. XXII: 3,4, p. 141-3: B. 800, CH, Sargonid debris of houses

27.5 × 18

Collon 1987 no. 125; BM II 149; Boehmer 1965, 183 no. 1439, Abb. 630

Seated man on stool holding a cup before a table or brazier with three triangular objects on it and a large pot on a stand (perhaps with another pot beneath it?), approached by three men raising vessels in their hands; large bullman's head with "handles" above the table/brazier. Surface damaged in area of seated man.

356 Ashmolean 1939.332: 200

Two rollings on largely complete sealing from jar shoulder; no string mark is preserved and it is not clear how the sealing would have worked.

W JNP Long Room E of New Ct - 1-2 m

26 × 44?(ext)

Moorey and Gurney 1978, no. 8

"Winged gate" above animal, no doubt bull, grasped by standing person on right; seated person on stool with two horizontal lines to the right of his waist; linear object behind the two persons.

357 Ashmolean 1939.332: 136

Two rollings on bulla fragment with string mark and crinkled material impression on back; perhaps sealing from jar wrapped with material.

W CR.H.

Buchanan 1966, p. 64: 341

25? × 33?(ext)

"Winged gate" on bull grasped by kneeling nude human on right; on left, no doubt another human, though it is not clear whether seated or standing. The attachment of this person's head is not certain.

358 Aleppo Museum 3718

Fine black stone cylinder seal, broken along a smooth and strongly undulating surface.

W Label: JNP E of WALL COMPLEX B 818

27 × 15(ext)

Aleppo II 353

Man in striped dress grasping something which is now missing; star above. On right unclear trace.

359 REG 3898

TB 10016

Rolling on bulla with impressions of folded material and cord mark.

SS 544: Pit near surface, cutting a floor in the upper levels, and cutting wall on S side of room 6

15.5(ext) × 22(ext)

Man holding barred object, tree behind. On left, solid object with striped pattern, perhaps human dress.

360 BM 125887

Impression on bulla fragment with a flattish surface on the back, perhaps from material, and also large hollows possibly made by coarse string.

W JNP TOP

BM 125888

Impression on bulla fragment with fibrous impressions on back.

W Museum record: JNP

26(ext) × 27(ext)

Man holds gate and looks backward at an unclear shape. On right, unclear forms including a human torso.

361 Ashmolean 1939.332: 138

Rolling on bulla with string mark and crinkled material surface on back.

W CR.H. Top of Crest. Top Level

33? × 35(ext)

God with rays and a saw, rising from the mountains and flanked by two "gates"; human grasping right gate; trace on right. The top and bottom of the field as shown are not certain.

362 REG 835

TB 5083

Impression on distorted end of test strip.

SS 95: Area north of SS building, mixed fill in upper levels

23 × 38(ext)

An ascending god with a raised leg, with rays over one shoulder and grasping an object, strides over one "mountain" and leans on another. Gates are held open on either side by attendants. On the left, one line of inscription, uncased, with a trace of a human(?) beyond.

363 REG 986

TB 5081

Two rollings on bulla made around twisted material or very thick string, with a flat basket surface at one end.

SS 75: Area north of SS building, floor in upper levels

REG 987

Rolling on bulla similar to REG 986, but no join.

SS 75: Area north of SS building, floor in upper levels

21.5 × 39

A god with rays, perhaps holding an implement, rises from the mountains, flanked by two gates, one of them grasped by a standing figure. Terminal pole surmounted by a star, perhaps a star-spade.

364 BM 125870

Two rollings on bulla with traces of cloth wrapped round a jar rim, neck and shoulder and tied with string (drawn pl. V).

W JNP

25 × 33?

A figure, probably with a raised leg, stands in a case which is supported by two nude humans, possibly full-face if a beard is properly recognised in the one shown on the left of the drawing. It is not certain that this is the same figure as the one whose leg is shown on the right of the drawing. This scene no doubt shows Shamash rising. Behind, two more standing humans face each other; uncased one-line inscription behind the one on the right. Schematic linear engraving.

365 Aleppo Museum 7755

Fine black stone cylinder seal, hole not central.

W Museum record: [None]

Mallowan 1936, pl. I:4, p. 29: Chagar Bazar S788, from site TD, Level 1 (mainly MBA).

18 × 12.5

Aleppo II 348

Three figures approach a seated person in a flounced dress who may be holding a vase; two of the figures are probably human but the middle one looks like a bird-demon. The discrepancy between the fine scratchy linear detail, especially in the two figures on the left, and the coarse lines and holes in the heads and the left-hand figures, suggests that the seal is either unfinished or (more likely) abraded and recut.

366 REG 4269

TB 11017

Fragment of cylinder seal, fine-grained dark porous stone, surface not shiny.

W Surface, area of Naram-Sin palace

Matthews 1991, no. 32

18.5 × 10(ext)

Constable-god apprehending bird-man; star.

367 Ashmolean 1939.332: 62

Two rollings on a bulla fragment with a material impression on the back.

W E.R. Contract Room

Buchanan 1966, p. 62: 326

28(ext) × 35(ext)

"Judgement of Anzu": constable-god shouldering an axe; bird-demon; seated god with flowing waters, under a star; the two gods have horned headdresses. A trace above the demon's head might be the end of a crescent.

368 Aleppo Museum 6765

Impression on end of test strip.

W (S) JNP STAIR ROOM B210

Iraq IX pl. XXIV:4, p. 148: dump, pl. LIII:23, p. 213: B. 210

Ht. 22(ext)

Boehmer 1965, no. 1219

Seated figure with hatched skirt facing kneeling man holding a staff, perhaps with a ring at the top. Between the figures, inscription in two lines. Wavy lines below the inscription may represent streams.

369 Ashmolean 1939.332: 36

Rolling on bulla with material impression on the back and coarse string mark on the back and across the seal-impression. Large hollow in the middle of the fragment.

W Top level near East Ridge

Buchanan 1966, p. 68: 368

BM 126362

Impression on large bulla fragment, probably originally attached to a jar neck wrapped round with string (drawn pl. V).

W NEW EAST RIDGE NEAR PEBBLE FLOOR TOPSOIL

Iraq IX pl. XXIII:19, p. 147: ER cobble floor, top occupation; Boehmer 1965, 175 no. 1191, Abb. 490

39 × 59(ext)

A row of four figures, the first three gods in horned headdresses and flounced dresses. The first god faces the others and holds a plough; the second has a frontal face, curls over each shoulder, bears a vase with steams flowing down over both elbows, and reaches to touch the plough; the third holds a plant and has plants sprouting from the body on both sides. The fourth figure is a human with a raised hand, facing the others. The lines shown top and bottom are part of the stepped profile of the seal.

370 BM 126368

Almost complete bulla, oval with two main faces and a curved top, all sealed. The bottom is formed round a fold of cloth with a knot of string. Regular shape (drawn pl. VI).

W F. 757. Field Register: New Court at 2.5 m above footing in centre towards south face JNP

Iraq IX pl. XXIII:4, p. 145: F. 757, Naram-Sin Palace, court 2, about 2 m above floor, thrown into debris used to level the palace in the post-Sargonid restoration

17 × 31.5

Boehmer 1965, no. 1310, Abb. 568; Lambert 1987b, 14-5

A seated god in a flounced dress and a horned headdress, holding a staff, is placed above a dragon with a horned head, long tail, and bird feet at least on the hindlegs; the forelegs are not clear. In front of him, a man in a split skirt offers an animal. Behind him, an inscription in two lines lies above a lion with its head turned back towards a standing figure.

371 BM 131748

Almost complete bulla with two main faces and a curved top. Both faces are sealed and there is an annotation in two lines of cuneiform along the curved top. The bottom is hollow and crinkled, possibly where the bulla was formed around a folded edge of cloth. A hole at one end is the only possible sign of string.

W F. 1164. Field Register: from twist dump surface JNP

Iraq IX, p. 69: rubbish dump within the precincts of the late palace

19(ext) × 42(ext)

Finkel 1985, 200 no. 11; Loretz 1969 no. 84, pl. XL

Inscription in one line, above an unclear object, perhaps animal. On either side, a human figure, the one on the right at a much larger scale. The one on the left may therefore be standing on an animal(?); he holds a staff or weapon in each hand. On the left, unclear traces, conceivably of a seated figure with streams, but this impression may be illusory.

372 BM 125908

Small lentoid bulla formed around a string, complete except chipped at one end. Sealed on one side; slightly concave on the other (drawn pl. VI).

W JNP S side of spine wall, centre hill, 10 courses below top, i.e. dates top level

Ht. 25(ext)

Inscription in two lines, apparently not cased on right; on left, seated figure in a flounced dress; on right, standing figure, possibly with a horned headdress.

373 BM 126377

Bulla fragment, perhaps originally lentoid bulla formed around a string, sealed on both sides.

W E. Ridge Sargon Level (1)

373 BM 126379

Rolling on bulla fragment with irregular back.

W ER nr [_ _ _] - 2.50; Museum record: E. Ridge Sargonid level

Iraq IX pl. XXIII:16, p. 147: ER, found close to no. 15 [Sargonid debris east of room 6]

BM 126380

Impression on flat surface of bulla fragment, stringmark on back.

W Museum record: ER Ash level of Bread Ovens E of Big Tablet Fragment

30(?) × 53(ext)

Inscription in three lines, above a small caprid. On the left, seated figure in flounced dress and horned headdress, holding(?) branch(?), area of head distorted; on the right, two standing figures with horned headdresses, one with a long plait. There is no direct connection preserved between these two figures. One rolling shows a foot behind the right-hand figure. I have assumed that this foot belongs to the central figure, of which only the other foot is preserved, and have reconstructed the scene accordingly.

374 Ashmolean 1939.332: 121

Rolling on bulla fragment (now broken in two pieces) with string mark and crinkled material surface on back.

W New Ct. - 3 m

25(ext) × 36(ext)

Standing human facing a seated figure in a flounced dress; two linear objects between them. Unclear traces behind the first figure.

375 Aleppo Museum 6766

Impression with string marks on back; could be a peg sealing but it is small and worn.

W B210 S JNP

Ht. 19(ext)

Inscription in one line. On left, seated figure in flounced dress; on right, man's arm, grasping object.

376 REG 2203

TB 8015-6

Impressions on two objects similar to peg sealings, but no trace of peg preserved.

FS 392: Fill above Level 5 wall between rooms 1 and 3

25 × 32?

Seated figure in a flounced dress, headdress probably horned, with rays rising from the shoulders, holds an object. At least two persons approach from the left. The first carries a small container, and the second has a stick or mace. It is not certain whether there was another figure between these two.

377 REG 4268

TB 11015

Black stone cylinder seal, slightly concave sides.

FS 687: Earlier level 2 floor; NE kitchen area.

D. Oates and J. Oates 1991, 143 pl. XXVIIIa; Matthews 1991, no. 33.

32.7 × 21.7

Three standing gods in simple horned headdresses, each with a long implement at the waist, face a seated god with an elaborate horned headdress. Rays project from the shoulders of the seated god and the central standing god. The first standing god pours a libation into a large vessel with vegetation growing out of it; star above.

378 Ashmolean 1939.332: 193

Three rollings on bulla fragment with string mark on back.

W JNP Rm N of New Ct.

19 × 29(ext)

A seated person, probably dressed in a flounced robe, holds a cup with a stand containing a branch in front of him. On the right, two standing persons, the first one with raised hand; crescent above.

379 Aleppo Museum 6773

Impression on bulla, probably originally attached to jar shoulder covered with cloth.

W B210 S

Iraq IX pl. XXIV: 5, p. 148: dump

24(ext) × 29(ext)

Seated figure on chair, in horned headdress and flounced dress holding implement in each hand, faces two standing figures, the first one raising a hand and holding an animal.

380 Aleppo Museum 7751

Banded grey and white calcareous stone, very worn.

W Field Register: Old Court area (top surface) JNP

23 × 13.5

Aleppo II 366

Man in a fringed robe holding an animal over his shoulder is led by the hand by a god in a horned headdress before a seated god in a horned headdress and a flounced dress; star above, terminal tree.

381 Aleppo Museum 3699

Black stone cylinder seal, not well polished, sides slightly concave.

W Label in Arabic: Tell Brak

29 × 16

Aleppo II 354

Figure holding "bucket" led by the hand by another figure before a seated figure, possibly holding a cup, below a crescent.

382 BM 125879

2 rollings on sealing originally attached to a jar shoulder.

W W.P.

18(ext) × 17(ext)

Three humans, one leading by the hand another, who is holding an animal; the third holding a bucket.

383 REG 1235

TB 6023

Two impressions on peg sealing with round end; peg has angular section and diam. c. 20 mm.?

DH 2: Surface

22 × 34(ext)

Man holding animal; legs of man(?) on left; unclear traces on right.

384 REG 4549

TB 11035

Two rollings on bulla fragment with heavy cord marks on back.

W Surface, near top of wadi to west of FS

Matthews 1991, no. 31

18 × 28(ext)

Man holding goat by tail and horn; man in long dress; seated person; standing man.

385 Ashmolean 1939.332: 132

Impression on bulla fragment with back rough; possible string mark.

W CRH

13(ext) × 25(ext)

Seated human on panelled stool; animal; human. The animal is not clear and may in fact represent a human walking beside an animal, like seal 384. The wavy line behind the animal may be its tail, not fully understood, or another object.

386 Aleppo Museum 6777

Impression on dense grey clay fragment, probably unbaked, which resembles a plain vessel rim.

W S[...E?] [...] WAL[L] OF COURT YARD [RE?]-EN[T?R?A??N?T] E. [E?N?D??] BIG COURT

17(ext) × 25(ext)

Seated figure. The area behind contains unclear traces which could be interpreted as showing an inscription above an animal, or not.

387 BM 125855

One rolling on clay with impression of string wrapped round a square-sectioned peg, peg diam. 17 or more.

W JNP B. ASH FOOTINGS OF TOP WALL. N SIDE OF SPINE WALL STEPS

Iraq IX pl. XXIV:11, p. 148: Naram-Sin Palace, room 17

21(ext) × 35(ext)

Boehmer 1965, 186 no. 1547

A standing human faces a seated human. On left, trace, perhaps scorpion? On right, traces, perhaps part of a cased inscription. The lower area may possibly show an animal lying under the inscription.

388 Ashmolean 1939.332: 169

Rolling on bulla, perhaps "package sealing" with string marks and material impression (see also seal 328).

W R. S of T. HALAF Ct. JNP

Buchanan 1966, p. 66: 357B: probably area of Courts 3-4, Akkad "Palace"

Ashmolean 1939.332: 203

Rolling on bulla with crinkled material impression and string mark on back (see also seal 328).

W F 759. Field Register: Room S of T. Halaf Court at - 90 cm

Buchanan 1966, p. 66: 357B: "Brak F759 (west side of Akkad "Palace", top fill - perhaps Ur III context)"

20(ext) × 25(ext)

Design in two registers separated by a double line. Above: lattice. Below: a standing man facing a seated man who may be holding something. Behind them, an unclear object formed of dots and lines, conceivably a rosette.

389 Ashmolean 1939.332: 174

Rollings on two surviving faces of a bulla made round a double string line.

W New Ct JNP ash level above floor

20(ext) × 27(ext)

Design in two registers, separated by a single line. Above: lattice. Below: two humans facing left, probably standing and seated respectively; on right, possibly another seated(?) person facing right.

390 BM 125886

2 rollings on bulla fragment with the impression of a fine basketwork cone on the base (drawn pl. VI).

W JNP; Museum record: UNC [perhaps misreading]

Wiseman 1962, pl. 30b

BM 125902

Impression on bulla fragment with parallel stringmarks on back.

W F.N.P. E. OF WC. HO

Wiseman 1962, pl. 30a

20.5 × 30(ext)

Seated man and hatched area.

391 Ashmolean 1939.332: 116

Impression on bulla fragment with irregular surface on back.

W CRH Top

22(ext) × 19(ext)

Human figure seated on stool; probably tree behind.

392 BM 125871

Impression on peg or vase sealing (uncertain which: if peg sealing, it was of large diameter).

W UNC

19.5(ext) × 24(ext)

Seated figure and standing figure back to back, vertical line between them.

393 Ashmolean 1939.332: 1

Rolling on clay lump, perhaps coarse string mark and flat surface with material impression.

W ER 3rd Dyn. levels

Ht 15(ext)

Traces of four men. The two in the middle are standing, the one on the left is seated, and the posture of the one on the right is unclear. The stroke next to his feet could be part of a stool. Behind the seated man on the left, a post or standard. Bottom line. It is possible that there is a break in the middle of the design, in which the man at each end could be the same; otherwise, the multiple profiles of the central man are hard to understand.

394 Ashmolean 1939.332: 15

Two rollings on convex surface of bulla fragment with string mark and a smooth concave area on the back.

W ER Top level

22(?) × 39(?)

Heads of three men facing left, all in horned crowns; inscription panel running the whole height of the design, with at least two lines. A second impression shows a standing man facing a seated man; the width suggested above assumes that there are two inscription columns and that the seated man is the same as the left horned head; but these are not certain.

395 BM 125910

Joins 125919.

W JNP

BM 125919

Joins BM 125910 (JNP). Part of a thick flat clay disk, with one rolling across one face. Back irregular. No stringmarks.

W PLASTER ROOM LOWER [b]

Ht. 27(ext)

Apparently four standing humans, the middle ones facing left and with an object between them which might be a cuneiform sign in the field.

396 Ashmolean 1939.332: 9

Impression(s?) on clay lump with flat surfaces and heavy string marks on back.

W E.R. Contract Room

11(ext) × 34(ext)

There are two impressions, no doubt of the same seal, at right angles to each other. The upper rolling shows an elbow and probably part of another man. The lower rolling shows the heads of three men. The right hand one has a horned headdress and probably bears a mace; there is a crescent before him.

397 BM 125883

2 rollings on peg sealing with an angular peg, diam. c. 9. There are coarse string marks on the flattish end of the object. [This object has now collapsed into fragments]

W WP

17.5(ext) × 44(ext)

Man faces two other humans, all apparently standing; star-spade on left, vertical line between the two right figures. The two rollings do not join so there may be missing elements on both sides of the first man.

398 Ashmolean 1939.332: 33

Impression on bulla fragment with string mark on back.

W E.R. 3rd. Dyn. Level

Iraq IX pl. XXIII: 17, p. 147: CH, on the level of the topmost floors

28(ext)

Boehmer 1965, 186 no. 1546

At least two figures in long garments, finely engraved. There may be a trace of a baseline or of the bottom of the seal.

399 BM 125864

Impression on bulla fragment with flat surfaces and stringmark on back

W F.N.P. E. of W.C.

Iraq IX pl. XXIV:7, p. 148: sub-surface, E end of area of Palace

Ht. 21(ext)

Trace of human figure in a flounced dress.

400 Ashmolean 1939.332: 117

Rolling on flat bulla fragment, back rough.

W CRH Lev. B

Ht. 17(ext)

Figure in long dress; inscription fragment; unclear trace on left.

401 Ashmolean 1939.332: 80

Two or three rollings on impression with smooth groove and possible string mark on back.

W T.H.[Ct] 2-3 m

Ht. 21(ext)

The area shown lower left looks like an overrolling. Inscription, apparently in one line which does not fill the full height of the field; but this could be misleading because of the overrolling. Person in long dress and horned headdress, with both arms raised in the interceding posture, facing inscription; head of another person behind. Other traces at edges. There seems to be a topline.

402 BM 126303

White and grey calcite, marble (M. Sax) cylinder seal. Pierced lug handle at one end; no axial boring; base plain.

W Museum records: Cr. H. Dump. N side top level

27 × 9-10

Diagonal ladder patterns.

403 Courtesy Dr A. Suleiman

White soft opaque cylinder seal, broken at one end.

W Tell Kashkashok, Ninevite V temple level

Ht. 19(ext)

Triple and single diagonal lines with cross-hatching; lower double line border.

404 Courtesy Dr A. Suleiman

White soft opaque cylinder seal, broken at one end.

W Tell Kashkashok, Ninevite V temple level

Ht. 20(ext)

Two pairs of diagonal lines with cross-hatching; lower double line border.

- 405 Courtesy Dr A. Suleiman
Calcite cylinder seal, concave sides.
W Tell Abu Hujeira, Sondage 2, - 7 m, ED III
Ht. 18
Chevron pattern with line borders.
- 406 REG 612
Rolling on disk-like bulla with string mark and basket impression on base.
TW 20: A. Thick layer of fill just N of the OB building.
Ht. 13.5(ext)
Chevron pattern; groundline.
- 407 REG 1097 TB 6021
Impression on bulla fragment with heavy cord marks.
DH 1: Surface
Ht. 22(ext)
Chevron pattern with at least three rows. I cannot estimate the circumference as the irregularities shown on the drawing are probably all the result of distortion in the impression.
- 408 Ashmolean 1939.332: 76
Impression on distorted test strip fragment.
W 2nd Line Chambers Gt. Ct.
Buchanan 1966, no. 135: 739
18(ext) × 14(ext)
Herringbone pattern.
- 409 BM 125797
Now grey/black faience (M. Sax) cylinder seal, worn surface.
W Field Register: Brak JNP. Top
Iraq IX pl. XXI:7,8, p. 134: B. 807, CH surface soil
20 × 12
Collon 1987 no. 50
Chevron pattern with three horizontal rows.
- 410 Courtesy Dr A. Suleiman
Cylinder seal [not seen].
W Tell Abu Hujeira, Sondage 3, bottom level, - 10m, ED III
Ht. 32
Chevron pattern with double line borders.
- 411 0
Mottled grey marble cylinder seal.
W Field Register: [probably same as] A355: BD
Mallowan 1937, pl. XVII:C2, p. 153: Chagar Bazar site BD, period uncertain
15 × 6
I have been unable to locate this object (drawing from published photo). Mallowan's photo shows a design in two registers separated by a single line. There is a chevron band in the upper register and a lattice pattern in the lower.
- 412 BM 126315
Brown ceramic (M. Sax) cylinder seal; ends concave; much of the surface is bad.
W Museum record: F 719. CRH South in packing below Lev. A2
Wiseman 1962, pl. 29d
30 × 19.5
Three horizontal lines with short diagonal lines between them.
- 413 REG 4271
Fragment of cylinder seal, light material, perhaps clay, surface badly encrusted.
SS 335: Under the platform of the ceremonial building, east side
Matthews 1991, no. 18
19 × 12
Pattern of diagonal strokes.

- 414** Ashmolean 1939.332: 96
 Impression on small round bulla with concave surface crossed by fine string mark on back.
W ZIG EXTN YP
 Buchanan 1966, p. 135: 738: "YP, ext."
 15 × 22
 Geometric design with the field divided into hatched triangular areas.
- 415** Ashmolean 1939.332: 68
 Two rollings on concave surface of a bulla fragment with folded cloth and string marks on back.
W 2nd Line Chambers, Gt. Ct
 Buchanan 1966, p. 135: 737: cloth mark
 12.5 × 29
 The field is divided into two triangular areas by diagonal lines; the upper area is hatched and the lower contains three angular shapes.
- 416** REG 1666 TB 7041
 Impression on curved surface of plano-convex bulla with groove down the middle.
W Surface, between DH and ET
 12 × 46
 Two sets of four triangles arranged in a rectangle (not crossed diagonal lines!); spaces left over are hatched.
- 417** REG 615 TB 4012
 Impression on bulla fragment with string mark in the middle and impression of basketwork on the base.
W TW B, surface
 19(ext) × 22(ext)
 Drawing J. Curtis. Trace of a large concentric diamond.
- 418** Aleppo Museum
 Impression on bulla with cloth mark on back, probably jar sealing.
W [None]
 14(ext) × 17(ext)
 Cross-hatched design, orientation unknown. It could be either a cylinder or a stamp impression.
- 419** BM 125596
 Cream ivory (M. Sax) cylinder seal. Broken in half along the axis.
W Museum record: Mallowan Khabur. Field Register: [possibly same as] A354: CT III
 16.5 × 11.5
 Diamond pattern.
- 420** Aleppo Museum 6515
 Hard opaque red stone cylinder seal with some concretion on the surface.
W Label: B 827. HF [= SS]
 18 × 11-10
 Diamond pattern.
- 421** Aleppo Museum 3706
 Slightly soapy grey stone cylinder seal, ends not parallel.
W Label in Arabic: Tell Brak
 22-20 × 17.5-16
 Aleppo II 321
 Diamond pattern.
- 422** BM 126323
 Calcite, limestone/marble (M. Sax) cylinder seal, cream.
W Museum record: F 727. Above 1938 shaft
 Wiseman 1962, pl. 11a; Iraq IX pl. XXI: 3,4, p. 133: F. 727, SW corner of Eye Temple platform, debris above shaft no. 1
 24 × 14
 Diamond pattern with thick main lines and hatched field.
- 423** REG 4270 TB 11018
 Worn calcite cylinder seal.
 SS 314: Clearance of baulk in upper levels
 Matthews 1991, no. 17

25 × 8-9

Diamond pattern with cross-hatched field and oval shapes in the middle.

424 BM 126316

Calcite, chalky limestone (M. Sax) cylinder seal, white/cream, surface badly pitted.

W Museum record: F 703. 80 cm below footing of NE wall of New Ct

20 × 20

Diamond pattern with oval forms in the middle.

425 Ashmolean 1939.332: 110

Impression on bulla with basket or reed(?) mark on back.

W Royal Shaft

Buchanan 1966, p. 144: 781: Royal Shaft (probably in room 32 of the Palace)

20 × 25(ext)

Geometric design based on a hatched diamond.

426 REG 5298

TB 12'

Cylinder seal, dark grey stone (marble?)

SS 1240: Room 21, floor

26 × 25

Cross-hatched diagonal lines forming an irregular diamond pattern.

427 Aleppo Museum 3555

Soft white limestone(?) cylinder seal, ends not parallel.

W Label: F 705. [New Ct] South Chamber 0.20 below footings

19-16 × 26

Aleppo II 393

Linear geometric design similar to diamond pattern.

428 BM 125798

Light grey calcite, limestone (M. Sax) cylinder seal with oval section. The object is pierced transversely only, under a head with two knobs, each with two "eyes" (possibly theriomorphic?). Base plain.

W Field Register: Chagar Bazar HL

Iraq IX pl. XLII:3, p. 189: B. 801, Chagar Bazar, TD, found loose in soil

40.5 × 14.5-15.5, knob end 14.5 × 9

Irregular diagonal cross-hatching with feature like lozenge in the middle. Surface eroded on one side.

429 Aleppo Museum 3646

Translucent soft green stone (alabaster?) cylinder seal.

W [None]

Mallowan 1937, pl. XII:2, fig. 14:2, p. 125, 136, 150: A358, Germayir, adjacent to, but 20 cm below, GG 24, embedded into a mud-brick wall

36 × 14

Aleppo II 319

Lozenge pattern with bands of oblique lines above and below.

430 Ashmolean 1939.332: 181

Two impressions on bulla with mark of peg or shaft with an angular section; diam. of peg 20 mm or more.

W JNP Gt. Ct.

Ht. 26(ext)

The cylinder was pressed, not rolled, in the clay. The design showed either several rows of lozenges or, less likely, opposed horned animals in the Brocade Style.

431 BM 138133

Blue faience (M. Sax) cylinder seal, irregular, hole not central.

W Museum record: F 731. JNP zig. S. side. Field Register: JNP ziggurra. South side. Hussein Saleh's Patch

26.5 × 13.5

Lozenge pattern.

432 BM 126425

Blue faience (M. Sax) cylinder seal.

W G 308. Museum record: E end of zig under red brick

Wiseman 1962, pl. 12f

21 × 15.5-16.5

Lozenge pattern with horizontal strokes, and crossed lines in each cell.

- 433** BM 126326
 Cream ivory (M. Sax) cylinder seal.
W Museum record: F 733. JNP Zigg. SW Ext. Dump
 Iraq IX pl. XXI:1,2, p. 132-3: F. 733, debris on south side of the Eye Temple platform
 16.5 × 12
 Lozenge pattern in two rows.
- 434** BM 138132
 Now white faience (M. Sax) cylinder seal, hole not central, one end chipped.
W Museum record: F 732. 1939 shaft
 14 × 10.5
 Three rows of oval shapes.
- 435** REG 616 TB 4013
 Impression on large bulla fragment with string marks on base.
 ST 51: Cut. Ashy fill layer, ED date, contaminated.
 40(ext) × 47(ext)
 Drawing J. Curtis. Large guilloche or running spiral design; horizontal lines below.
- 436** Ashmolean 1939.332: 88
 Impression on bulla fragment with flat surface and groove on back.
W zigg. [S.W.] Extn
 11(ext) × 15(ext)
 Rounded lozenge design, central dots.
- 437** BM 138134
 Now cream faience (M. Sax) cylinder seal, irregular and cracked.
W Museum record: F 729. Behind stones of zig. buttress
 17.5 × 12-13
 Perhaps coarse lozenge pattern.
- 438** Aleppo Museum 3708
 Grey-black stone cylinder seal, not bored, ends not parallel.
W Label in Arabic: Tell Brak. Field Register [conceivably same as] A360: CT(II)
 11.5-12 × 14-15
 Aleppo II 418
 Irregular lattice pattern.
- 439** REG 1855 TB 7034
 Cylinder seal, white calcite, shattered, oval section with irregular hole; heavily worn on one side.
 TP 7: Interior of a space under a layer of red bricks
 13.5 × 25
 Lattice pattern.
- 440** BM 126324
 Cream calcite, limestone (M. Sax) cylinder seal, oval section.
W Museum record: F 728. CR4 [doubtless error for CRH]. Field Register: From Crest Houses
 11.5 × 8.5
 Lattice pattern.
- 441** REG 4048 TB 10034
 Cylinder seal, soft dark green translucent stone.
 SS 549: Ritual deposit on pavement of court 8, in front of door to court 7
 19 × 8
 Lattice pattern with line borders.
- 442** BM 126327
 White/cream calcite, marble (M. Sax) cylinder seal, hole not central.
W Museum record: F 734. JNP Zigg. 1937 Shaft. Field Register: JNP ziggurat 1937 shaft. Derwesh's hack
 14.5 × 7
 Lattice pattern.

- 443** REG 1190 TB 6020
Two rollings, perhaps on peg sealing, though only the string marks are visible; the peg diam. must have been 18 mm or less.
FS 1037: Level 2 room 3, fill above upper floor
Ht. 12.5
Lattice pattern. I cannot estimate the circumference.
- 444** Aleppo Museum 7754
White calcite cylinder seal.
W G 302
17 × 11
Aleppo II 316/320
Lattice pattern.
- 445** Aleppo Museum 7749
White calcite cylinder seal.
W [None]
21 × 14
Aleppo II 316/320
Lattice pattern; top and bottom lines.
- 446** Aleppo Museum 6388
Impression on bulla fragment with groove or string mark on back.
W [None]
33(ext) × 27(ext)
Cross-hatched design with line border.
- 447** Aleppo Museum 6505
Grey ceramic cylinder seal, broken at one end, chipped the other.
W B 835. WP. Field Register: Brak
36(ext) × 24.5
Lattice pattern.
- 448** REG 834 TB 5087
Three rollings on peg sealing, peg diam. c. 13 mm; end broken.
SS 95: Area north of SS building, mixed fill in upper levels
Ht. 14. Circumf. not less than 19.
Two rows of wedges (n.b. not zig-zag line!) above lattice pattern.
- 449** REG 3151
Charred wood(?) seal or bead fragment, pierced longitudinally.
SS 502: Court 8, fill adjacent to the Facade, north side
40 × 27.5(ext)
Sketch after Brak expedition. Diagonal cross hatching. Scale 70%.
- 450** REG 4021
Two pieces of black clay cylinder seal or bead, pierced longitudinally, worn surface.
SS 545: Fill in courtyard 8, north side
49 × 20(ext); 26 × 19.5(ext)
Sketch after Brak expedition. Diagonal cross hatching. Scale 70%.
- 451** Ashmolean 1939.332: 26
Two rollings, probably on peg sealing; but no clear trace of peg.
W E.R. 3rd. Dyn. Level
Buchanan 1966, p. 134-5: 734; said to be 3 rollings
Ht. 19
Top and bottom lines. The surface is divided into diamond-shaped panels, each with a central dot.
- 452** BM 126325
White/cream calcite, marble (M. Sax) cylinder seal, slightly concave. Broken.
W Museum record: F 707. Surface. Field Register: found on Brak mound and purchased
24 × 10
Collon 1987 no. 51
Dotted lattice pattern.

- 453** BM 125876
 Impression on bulla with pinched-up ridge on back.
 W [J?]NP
 Wiseman 1962, pl. 30d
 20(ext) × 23(ext)
 Dotted lattice.
- 454** REG 416 TB 3005
 Impressions on bulla.
 ER 237: Level 4 (ED III dest.); room 44
 D. Oates 1982, 199, pl. XIVe
 30(ext) × 27(ext)
 Drawing J. Curtis. Dotted lattice pattern.
- 455** REG 7334
 Impression on bulla fragment with string and basket marks on back.
 W Surface below HH on north side
 30(ext) × 26(ext)
 Drawing after H. McDonald. Dot in lattice pattern.
- 456** Ashmolean 1939.332: 12
 2 rollings, on lump with string and concave surface on back, possibly made by vessel rim.
 W E. Ridge [- 2 m]
 Ashmolean 1939.332: 44
 2 rollings, on clay lump with concave surfaces on back.
 W E. Ridge [- 2 m]
 14.5 × 16(ext)
 Buchanan 1966, p. 136: 748: jar marks
 Key pattern with three interlocking rows; row of dots at bottom.
- 457** Ashmolean 1939.332: 160
 Impression on disk-like bulla fragment with basket mark on base.
 W Above 38 shaft [1st m?]
 Buchanan 1966, p. 129: 710
 21? × 17(ext)
 Three rows of objects which narrow in the middle and are hatched at both ends; unclear shapes above and below. The top of the field as shown is not certain.
- 458** Aleppo Museum 7752
 Lapis lazuli cylinder seal, worn, oval section.
 W [None]
 19.5 × 6-8
 Aleppo II 314
 Traces of six horizontal lines.
- 459** Aleppo Museum
 Impressions, perhaps on peg sealing; no trace of string preserved.
 W [None]
 Ht. 20?(ext)
 At least two and probably three rollings of a seal with a geometric design.
- 460** BM 138135
 Brown ceramic (M. Sax) half of a coarse cylinder seal with rounded ends, broken along the axis.
 W Museum record: E extn Pal. c - 2 m
 38 × 15
 BM III p. 217 no. 647; Al-Gailani Werr 1988, fig. 16:123
 Irregular linear scratches.
- 461** REG 5367
 Impression on bulla fragment.
 SS 693: Topsoil, in area above room 19

34?(ext)

Drawing after Brak expedition. The orientation of this geometric design is unclear. Double lines at diagonals to each other; hatching and other forms in the field.

462 REG 5118

Impressions on peg sealing.

SS 915: Room 19, fill

25(ext) × 40(ext)

Drawing after Brak expedition. Geometric pattern including hatched bands and dots.

463 REG 5793

Impression on bulla fragment with possible string marks on back.

W SS, surface

38(ext)

Drawing after H. McDonald. The orientation of the design is unknown. Geometric pattern with large curved parallel lines.

464 REG 1234

TB 6022

Impression on concave surface of bulla with groove and string mark on the other side.

FS 336: Area east of revealed doors building, fill

12(ext) × 31(ext)

Irregular pattern of vertical and diagonal lines.

465 BM 125893

Impression on bulla fragment with groove and stringmarks on back, and a material impression on one side; perhaps made by cloth wrapped over a jar, but no curvature visible.

W W.P. [- 4?]

15 × 21?

Design in two registers separated by a line. The upper register is divided into panels, each of which is hatched; it is not clear whether the lower register is geometric or figurative.

466 Ashmolean 1939.332: 25

Two impressions on bulla with string and possible peg mark on back.

W E. Ridge [w. end - [2?] m]

24(ext)

Orientation uncertain. Peg sealings were nearly always rolled parallel to the peg and the drawing is shown according to this principle. The surface is divided by lines into roughly triangular areas which are hatched; one such area has a triangular centre.

467 REG 4046

Impression on small bulla fragment.

SS 549: Ritual deposit on pavement of court 8, in front of door to court 7

Small

Sketch after Brak expedition. Two converging lines with infill hatching.

468 REG 4888

Impression on heavy pot sherd, thickness 20 mm.

SS 609: Tanur in upper levels, area above room 25

15(ext)

Drawing after Brak expedition. Two slightly curved lines with hatching between them.

469 REG 982

TB 5088

Impression on broken bulla fragment, back rough.

W CH dump

24(ext) × 25(ext)

The orientation of this design is unknown. The field is divided into hatched panels by lines forming a rough H-shape.

470 REG 1537

TB 7040

Impressions on peg sealing (peg diam. c. 22 mm) tied with string; the peg projected from an undulating surface of parallel grooves, perhaps reed or basket work.

W Surface, below HH

28(ext) × 28(ext)

Bold linked triangular shapes, at least one with a surface hatched pattern; rosette and other hatched shapes in the field. The orientation of the design is unknown and it is not impossible that it is heavily overrolled.

- 471** REG 716 TB 5090
 Impression on fragment of test strip.
 CH 427: Probably Level 5, in street area
 17(ext) × 28(ext)
 Vertical and horizontal members, perhaps stylised animals; the field is hatched.
- 472** REG 4325 TB 11042
 Impression on lower part of chassis of a baked clay chariot model, buff fabric, with axle hole and pierced projection in front.
 W Brak, surface
 Matthews 1991, no. 16
 14(ext) × 38?
 Probably a human and two stylised animals, each above a spiky plant or other object. Hatched area above one animal.
- 473** BM 125898
 2 rollings, probably on peg sealing with an angular peg, diam. c. 13?
 W JNP
 Wiseman 1962, pl. 29g
 17 × 23.5
 Human standing between two horned animals: plant-like forms beneath the animals and crossed-hatched areas above them.
- 474** Ashmolean 1938.102
 Rolling on bulla fragment with rough back, possibly large test strip?
 W [None]
 Buchanan 1966, p. 133: 727: "Brak"
 20.5 × 26?
 Two stylised horned animals, back to back; triangle above one of them, rosette above the other. Linear object on left. It is not clear whether the object to the left of this is part of the right hand animal, or whether it is another figure. All parts of the field not occupied by these figures are hatched.
- 475** REG 7552
 Impression on bulla fragment with string mark on back.
 W SS 2
 16
 Drawing after H. McDonald. Double curved lines with hatched area within, either a geometric design or perhaps part of a horned animal.
- 476** Ashmolean 1939.332: 19
 One rolling, probably on "package bulla".
 W E. Ridge. XY. Sarg.
 Ashmolean 1939.332: 28
 Impression on small bulla fragment with string mark.
 W E. Ridge Sargon XY
 Ashmolean 1939.332: 29
 Impression on bulla fragment with string mark between two flat faces with material impressions, perhaps jar sealing?
 W E. Ridge Sargon level
 Ashmolean 1939.332: 51
 Three rollings on peg sealing, peg diam. 20 or more.
 W E. Ridge ash pit c - 4.50 m ante-dating existing walls
 Ashmolean 1939.332: 58
 Impression on bulla fragment with string mark.
 W E. Ridge Sargon XY
 Ashmolean 1939.332: 60
 Impression on bulla fragment with string mark between two flat faces with material impressions, perhaps jar sealing? (drawn pl. IV)
 W E. Ridge Sargon XY

476 BM 126361

2 impression on large bulla fragment with two flattish surfaces on the back, approximately at right angles to each other with lines of string along the join. Both surfaces show impressions of material. On the sealed face, there is the impression of the end of a cylindrical object, perhaps the seal itself (drawn pl. IV).

W E. Ridge Sargonid -1.20 m below Scribblers Tablet XY + on S. side Flimsy E + W wall

Iraq IX pl. XXIII:9, p. 146: ER room 9, against footings of a Sargonid wall

31 × 37

Buchanan 1966, p. 140: 758

A man with raised arms, a stag and a goat. Three shapes in upper field, one with radiating lines. Small suckling animal and blob under goat; scorpion under stag. Feather-like objects, a small one in front of the stag, a large one in front of the goat. Hatched lines above and below. Note the engraving technique with bold main shapes and almost invisible feathery hatching, not good for making a clear impression. The seal apparently had a fluted bevelled cap and the impression of the end in BM 126361 may indicate a mount attached to the end, though this may just be due to a slipped impression.

477 BM 131741

Impression on test strip fragment.

W Museum record: A 394. Field Register: - 1.7 m below the top of the S [inner?] wall of CT in a chamber in the loose soil against the [packed face] of the temple + probably ante-dating the temple. Probably contemp. level II

16 × 20(ext)

Human facing animal; hatched area between them. Birds(?) above the animal; dots and unclear shapes behind it. Top and bottom lines.

478 REG 248

TB 1054

Rolling on concave surface of flattish ceramic lid(?) sherd, pink gritty fabric with small stones, cream slip on sealed side, thickness 9-13 mm.

CH 89: Hard surface under the ED III level 6.

23 × 28

Horned animal, eagle, snake and scorpion(?).

479 REG 614

TB 4011

Impression on peg sealing fragment, with string mark around peg and running through the side of the sealing; peg diam. c. 20 mm.

TW 3: A. Surface pit, in area above N side of OB building.

23(ext) × 24(ext)

Drawing J. Curtis. Horned animal; traces on left.

480 REG 627

TB 4007

Impression on sherd, gritty pink fabric with white external slip, well fired (60 × 60 × 7). Perhaps hand made.

W ST, wadi

Large

Drawn from photo. Horned animal.

481 REG 372

TB 3011

Impression on light brown sherd (57 × 54).

W Surface, low down on HH mound

D. Oates 1982, 199, pl. XIVb

Large

Drawn from photo. Animal (or bird??) above horned animal; unclear triangular shapes top left.

482 Courtesy Dr A. Suleiman

Impression on jar shoulder sherd, gritty pink fabric with white slip on outside surface.

W Tell Kashkashok, Sector A, Ninevite V level, room 14, beside the temple, - 1.80 m from top of tell

28(ext) × 34?

Two(?) animals with long horns. There are too many curved double lines in the upper field, which may indicate the existence of another row of animals or some geometric pattern.

483 REG 2139

TB 8020

Rolling on convex surface of clay object with stringmark and a criss-cross impression with spacing of c. 5 mm on the concave inner surface.

W Tell Arbit, surface

14.5(ext) × 27(ext)

Two animals with long horns, arranged tete-beche; two triangles between them. An object like a bow tie fills the space under the right animal's horns.

- 484** REG 630 TB 4017
 Impressions on four or five sided docket, (50 × 25); string holes at one end.
 CH 449: Level 6 (ED III). Room 61 destruction debris.
 D. Oates 1982, 200 pl. XV a, b
 20(ext) × 32
 Drawing after Brak Expedition. Inverted animal above bull; man with raised arm; man or demon with two curving projections in front and two longer curving lines behind.
- 485** Ashmolean 1939.332: 162
 Three rollings on peg sealing with rounded end; large peg.
 W Above 38 shaft c. 3 m
 Buchanan 1966, p. 139: 754
 21 × 32.5
 Design in two registers, separated by a notched line. Above, four scorpions and a star. Below, a scorpion, two horned animals arranged tete-beche, and two humans, the first one either demonic or else wearing a strange garment with two long streamers at the back.
- 486** Ashmolean 1939.332: 167
 Two rollings on bulla with multiple string marks: probably jar sealing?
 W JNP New Ct S centre in ash layer level [with?] footings
 Buchanan 1966, p. 132: 722
 22 × 29
 Two humans arranged tete-beche; animal, with two heads(?). Various shapes in the field.
- 487** BM 125915
 Impression on bulla fragment with back rough.
 W JNP
 Wiseman 1962, pl. 30c
 14(ext) × 23(ext)
 Two animals back to back. The shapes above them may include ears and the ends of long horns.
- 488** REG 602 TB 4003
 Baked clay seal, unpierced.
 ST 15: Trench D. Gully fill, probably Akk.
 D. Oates 1982, 199-200, pl. XIVf
 17 × 14
 Drawn from photo. Two stylised animals(?)
- 489** REG 4547 TB 14072
 White composition or calcite cylinder seal, broken.
 SS 549: Ritual deposit on pavement of court 8, in front of door to court 7
 Matthews 1991, no. 15
 27 × 15
 Man, apparently raising hand with splayed fingers; two animals, orientation unclear, flanking vertical member; star; scorpion.
- 490** Aleppo Museum 7745
 Bone cylinder seal, perhaps slightly cracked; tapering and with oval section.
 W G 301
 19 × 9-11.5
 Aleppo II 410
 Man with raised spiky hands; other shapes in the field may include an animal and other figures.
- 491** BM 131743
 Impression on a bulla which may have been either a very large peg sealing (diam. of peg c. 50?) or was attached to a jar.
 W Museum record: A 400. Field Register: Tell Gernayir
 19.5 × 28(ext)
 Human, unclear object on left, perhaps animal; wedge on left of human.
- 492** Aleppo Museum 6315
 Impression on bulla originally attached to jar with cylindrical neck or large peg.
 W A 395. Field Register: CT III-IV?

18(ext) × 28(ext)

The field is covered by curved objects which are shaped to occupy the whole of the space available. The one in the middle is a human, apparently holding a fish-shaped object, and there is a hatched object on the left. The other shapes may all be fillers.

493 REG 800

TB 5084

Two rollings on flat face of bulla with smooth surface behind; fine string mark across sealed face.

ST 100: Levelling for Akk "Grey blg"; assoc. material cf. ED III dest.

Ht. 16(ext)

Fore- and hind-quarters of an animal, probably not the same one as it would then be hard to find space for the smaller impression. All spaces left over in the field are filled with linear or hatched objects. The second impression may show the angled legs of an animal, and other shapes.

494 REG 5757

TB 13008

Two rollings on bulla fragment, back rough.

W SS, surface

15(ext) × 39(ext)

Probably an animal with a branched motive such as a plant above it; other hatched areas.

495 REG 144

TB 1059

Rolling on bulla fragment with concave surface on back; not like peg sealing.

W CH B, cleaning

14(ext) × 14(ext)

Human(?) feet; small triangle; unintelligible shapes.

496 REG 801

TB 5085

Rolling on bulla with possible reed marks on flat base.

ST 100: Levelling for Akk "Grey blg"; assoc. material cf. ED III dest.

20(ext) × 26(ext)

Large rosette with vertical line on left; left of this line, and in the spaces left over by the rosette, are triangular shapes.

497 Aleppo Museum

Impression on peg or bottle sealing, diam. of peg or neck c. 12 mm.

W JNP ASH PIT NE S[T??E?P?]S B210 S

18(ext) × 25

Seated figure, facing objects which might be a large pot on a stand.

498 REG 2838

TB 9007

Impression on plano-convex bulla fragment with slightly concave base and string mark.

FS 527: 1987 campaign

16.5(ext) × 27(ext)

Scorpion; triangle; legs of human; traces behind the human might be the body of a bird(?).

499 Aleppo Museum 6771

Impression on bulla with cloth and string marks on back, possibly jar sealing but if so the jar was too large for the curvature to show.

W B210 S

26.5 × 44(ext)

Man, bird, horned animal; unclear shapes above and below bird; small shapes in field.

500 REG 1503

TB 6018

Impression on pinkish grit-tempered body sherd with cream slip, thickness 8.5 mm.

W Tell Mozan, surface

22.5(ext) × 38

Human and animal with long horns hatched across, possibly a stag. Hatched object under the animal (small animal, scorpion or plant?)

501 REG 4443

TB 11034

Impression on test strip fragment, perhaps lightly baked.

W Brak, surface

Matthews 1991, no. 13

24 × 37

Man holding something in one hand follows a large stag which is above a spiky object (perhaps bird?).

- 502** REG 4272 TB 11041
 Impression on grit tempered buff jar sherd, thickness c. 12 mm.
 SS 560: Scraping surface east of room 10
 Matthews 1991, no. 14
 18 × 34
 Large horned animal above spiky object; scorpion; man.
- 503** REG 4440 TB 11030
 Two rollings on peg sealing with angular peg of diam. at least 20 mm; end surface is rough and flattish with 2 grooves.
 FS 1667: Fill N of level 3 room 90.5; possible level 2 contamination.
 Matthews 1991, no. 12
 29 × 40
 Horned animal with one raised foreleg faces bird or snake; man, perhaps seated, grasps on one side an object like a chair with a spiral curl, and a fish(?) on the other. Beneath the fish(?), a spiky object.
- 504** Aleppo Museum 7747
 Calcareous soft stone(?) cylinder seal, oval section.
 W G 303
 15 × 8.5-9.5
 Aleppo II 411
 Human and two animals, one horned, the other perhaps a lion; strokes in field.
- 505** REG 4552 TB 11019b
 Fragment of bone seal, stained green by copper deposit.
 SS 549: Ritual deposit on pavement of court 8, in front of door to court 7
 Matthews 1991, no. 9
 1.56(ext) × diam. 1.04
 Small part of design showing a bird with a larger figure above it; circled dots.
- 506** REG 4551 TB 11019a
 Fragment of composition(?) seal, top broken off. Material is light and has fine white matt surface, not crumbly.
 SS 580: Room 30 fill and fill of court to west
 Matthews 1991, no. 10
 7.8(ext) × 8.6
 The design is hard to understand: there are two pairs of feet, members containing circled dots, and a hatched object.
- 507** Aleppo Museum 3715
 Black stone cylinder seal, broken.
 W Label: F 706. Room S. of Old Court. Top metre
 18(ext) × 12
 Aleppo II 416
 Three humans, one seated; two circled dots and three dots; terminal tree or standard; bottom line; unintelligible strokes.
 Top missing.
- 508** Ashmolean 1939.332: 45
 Impressions on bulla fragment with convex back with shallow groove.
 W E. Ridge Contract Rm
 Ashmolean 1939.332: 46
 Three rollings on faceted "package sealing" with string and knot marks and folded material impression; perhaps jar sealing?
 W E.R. Contract Rm
 Ashmolean 1939.332: 47
 Three rollings on faceted "package sealing", with string and knot marks and folded material impression, perhaps jar sealing?
 W E.R. Contract Rm
 Ashmolean 1939.332: 54
 Four rollings on bulla with string and knot(?) marks on back. Holes running through the sealed face might have been made by string?
 W E.R. Con. Rm

- 508** Ashmolean 1939.332: 55
Three rollings on faceted "package sealing" with string and knot(?) marks.
W E.R. Contract Rm
Ashmolean 1939.332: 63
Four rollings on faceted bulla (broken in two parts which join) with string and knot(?) marks, a folded material surface and a flat surface on the back, and a groove up the side.
W E.R. Contract Rm
Ashmolean 1939.332: 65
Three rollings on "package sealing" with string and knot(?) marks and a smooth surface on the back.
W E.R. Contract Rm
19 × 38.5
Buchanan 1966, p. 139-40: 756
Three men with raised arms approach a table and a seated man who may be holding an object; tall hatched panel behind. Unclear object and scorpion between the first two men.
- 509** Ashmolean 1939.332: 93
Rolling on bulla fragment with groove and flattish surface on back.
W T.D. Top
Buchanan 1966, p. 152: 810: "TD top (north-west sector; no datable context)"
13(ext) × 24
Table between a standing man and a seated man; terminal hatched panel.
- 510** Ashmolean 1939.332: 42
Impression on bulla with flat end and string mark, possibly peg sealing but no trace of peg preserved.
W E.R. 3rd. Dyn.
Buchanan 1966, p. 139: 755
16 × 26(ext)
Three hatched shapes, at least one with a human protome on top; man seated on chair, holding an object (perhaps a vessel?) on a stand.
- 511** Ashmolean 1939.332: 49
Four rollings on a peg sealing with flat end, peg diam. perhaps c. 15 but this is estimated from the string only.
W E. Ridge - 2m
Buchanan 1966, p. 153: 815
19 × 27
A seated and a standing man hold tubes running from a vessel on a stand between them. A column topped by a triangle on the left; the standing man holds a pole behind him beyond which is an unclear area; terminal ladder; herringbone hatched band below. Buchanan thought the object behind the standing man was an ibex head on a pole, but this does not explain the lower part of the figure. Could it be some kind of animal-headed demon, cf. Ben-Tor 1978, 32 fig. 68?
- 512** Aleppo Museum 3717
Fine soft black stone cylinder seal.
W Label: B. 822 JNP under floor of stair room, low down
Iraq IX pl. XXI: 13,14, p. 135: B. 822, Naram-Sin palace room 29, debris level with the earlier foundation
13(ext) × 11
GMA 677; Aleppo II 352
Pot with two tubes(?) sticking out of it, with a snake or stream of water on each side; on right, seated and standing humans. The object to the left of the pot looks like another seated human but it has no legs.
- 513** BM 125897
Impression, probably on broken peg sealing fragment, peg perhaps angular in section with diam. c. 30, but this is unclear.
W JNP
Wiseman 1962, pl. 30f
24(ext) × 39(ext)
Seated man with a vessel on a stand before him; unclear traces beyond. There may be straws projecting from the vessel. On either side of the vessel and stand, hollow shapes. Distorted and worn.
- 514** REG 626 TB 4006
Impression on buff clay fragment, possibly baked but not a pot sherd, th. 18; possible textile impression on back.
ST 9: Gully fill, probably Akk.
D. Oates 1982, 199, pl. XIVa

37(ext) × 50(ext)

Drawing J. Curtis. Seated man with harp; horned animal and bird(?) behind him; traces on right. Hatched band at top.

515 Courtesy Dr A. Suleiman

Impression, probably on distorted test strip fragment.

W Tell Abu Hujaira, Level 1, Akkadian period, - 2.70 m from top of tell

19(ext) × 32

Two horned animals face a plant between them; snake above. Ladder pattern in upper field.

516 REG 625

Impression on dense clay fragment with flat back.

ST 8: Trench D. Gully fill, probably Akk.

9(ext) × 13(ext)

Horizontal ladder-pattern.

517 REG 611

TB 4004

Seal, dark grey stone.

CH 456: Level 6 (ED III). Room 65 floor make-up.

D. Oates 1982, 199, pl. XIVc

28 × 12

Drawn from photo. Five humans with raised arms; scorpion; hatched band at top.

518 BM 125390

Black steatite (M. Sax) cylinder seal.

W Museum record: Tell Chagar Bazar

Wiseman 1962, pl. 29a; Mallowan 1936, pl. I:5, fig. 2, p. 29: Chagar Bazar S 775, Area M (Prehistoric Pit) Level 7 ("may confidently be ascribed to the T. Halaf period!")

17 × 10.5

Row of four humans.

519 REG 135

TB 1060

Impression on bulla fragment, back rough.

W Brak, surface

16 × 20(ext)

Row of three humans or demons joined by a horizontal line at the shoulder; they have animal-like heads and each has a stroke crossing one leg; small object in field.

520 BM 125873

2 rollings on bulla fragment with the trace of, perhaps, a folded corner of material on the back.

W UNC; Museum record: UNC

16(ext) × 28(ext)

Row of at least three figures, perhaps paddling in a boat, but this may be an illusion. Unclear traces on left; groundline.

521 BM 125914

3 rollings on bulla fragment with coarse string marks on back.

W JNP HILL TOP S. OF N. HILL. CREST WALL

Wiseman 1962, pl. 30h

Ht. 12

The left end of the drawing may represent an overrolling and it is not clear how the human there relates to the rest of the scene. Two humans to the right of an angular shape: possibly a ploughing scene? Ground line with unclear shapes below it.

522 Ashmolean 1939.332: 129

Impression on bulla fragment with smooth (sealed?) surface on back.

W New Ct.

Ht. 21(ext)

Two human figures, one grasping an object(?); shapes between and around them. The upper right area may be overrolled.

523 BM 126329

Brown and black steatite (M. Sax) cylinder seal, irregular section, not well polished.

W Museum record: TD top metre

21.5 × 10-11

Unclear shapes, perhaps three humans or a human and a quadruped.

524 Aleppo Museum

Impression on bulla fragment with thick cord mark on back.

W [None]

22(ext) × 25(ext)

The orientation of this impression is uncertain. The shapes might include a pair of human legs.

525 Courtesy Dr A. Suleiman

Very soft white crumbly cylinder seal, no central boring.

W Tell Abu Hujeira, Room 9, late ED III, - 3.80 m from top of tell

41 × 20

A man faces a rampant animal with raised tail, behind him a scorpion and an object which might be another scorpion or a plant. Four small wishbone shapes (animal heads?) in the field. A dot by the animal's tail and unclear lines to the left of its head.

526 Aleppo Museum 6563

Rollings on 11 bulla fragments, including: a large peg sealing; a peg sealing with peg diam. c. 17; and a bulla which might have been a stopper placed on top of a vessel mouth.

W [None]

BM 131744

3 rollings on peg sealing, peg diam. c. 40.

W Museum record: A 400a. Field register: NIN 3 type from CT 4-5

32 × 47?

The numerous impressions of this seal do not allow a satisfactory reconstruction to be made; the drawing is the best compromise I can make. Human between two animals; terminal linear object.

527 BM 126319

Ceramic? (M. Sax) cylinder seal, grey.

W Museum record: F 726. TD Top metre

Wiseman 1962, pl. 2e; Iraq IX pl. XXI:11,12, p. 134-5: F. 726, HH top metre in later debris

22.5 × 14.5

GMA 633

Man, caprid and ladder pattern in crude linear style; two twisted forms above the animals, one of which may be the raised arm of the man.

528 BM 126317

Cream lime plaster (M. Sax) cylinder seal, flattened on one side.

W 27[.]; Museum record: F 717. Field register: Crest Houses, Top soil

29.5 × 17-19

Irregular scratched design with a radiating feature on one side and a ladder pattern on the other.

529 BM 126450

Black and white chlorite (M. Sax) cylinder seal. Oval section.

W Museum record: [None]

Mallowan 1946, pl. 24:3, Tell Jidleh level 3 (Habur and Nuzi ware)

30 × 14.5-16

Man with raised arms and two(?) snakes before herringbone hatched panel; circled dot and two more snakes(?) behind.

530 BM 126321

Calcite, limestone (M. Sax) cylinder seal, grey.

W Museum record: F 724. Field register: Flag Staff site a(1) on brick packing

24 × 14.5

Unfinished seal with simple linear tree.

531 Aleppo Museum 7744

Grey-brown ceramic cylinder seal, barrel-shaped.

W Field register: possibly same as F721: New East Ridge at c. -2m

24 × 12(ends), 16(middle)

Aleppo II 413

Crude linear forms, unclear whether geometric or figurative.

532 BM 125618

Blackish surface with brown body ceramic (M. Sax) cylinder seal. Worn.

W Museum record: Mallowan Khabur. A 373 (label). Field register: Purchased Habur - JJ region

21.5 × 13-14

Unclear design which could be either geometric or figurative. Vertical line and four horizontal lines. On left of this, triangle and two dots; on right, unclear form, perhaps circle with two lines above it and two lines below it; three dots to right.

533 Aleppo Museum 7726

Grey-brown ceramic cylinder seal.

W Museum record: [None]

26 × 10.5-12

Aleppo II 317

Three pairs of parallel vertical lines; swirls and diagonal lines.

534 Ashmolean 1939.332: 77

Impression on peg sealing fragment with end broken, peg diam. c. 22.

W CR.H. just above level of Copper Cache

Buchanan 1966, no. 136: 750: "jar marks" probably in error

12(ext) × 13(ext)

Volute pattern; hatched border below and probably above.

535 REG 5295

Impression on bulla fragment with string mark on back.

SS 926: Room 40, upper fill

Small

Drawing after Brak expedition. Unintelligible fragment with swirl.

536 REG 5116

Impressions on disk-like bulla with string mark and basket impression on base.

FS 1818: Thin ashy deposit above general area of level 5 court 7 and under level 3 wall

?

Drawing after Brak expedition. Swirl, overrolled to an uncertain extent; perhaps including animal head.

537 REG 5263

Impression on bulla fragment with string mark and smooth groove on back.

SS 925: Room 41, upper fill

Small

Drawing after Brak expedition. Curved forms, unintelligible.

538 REG 5673

Impression on bulla fragment with smooth back.

W SS, surface

15(ext) × 16(ext)

Drawing after H. McDonald. Foliate shapes filling up the available surface. The orientation of the design is uncertain.

539 Aleppo Museum 7738

Opaque red stone cylinder seal.

W Museum record: [None]

25 × 18

Aleppo II 315

Unintelligible design, apparently including a swirl, animal and bird(?) bodies and perhaps a tree; many dots, strokes and small shapes.

540 Aleppo Museum 6564

Two rollings on bulla fragment with flattish back.

W [None]

Ht. 14(ext)

Various shapes, including small bird? and circled dot. The circled dot in the second rolling is probably another one.

541 Ashmolean 1939.332: 37

Impression on bulla fragment with convex back.

W E. Ridge Sargon

15(ext) × 17?

The orientation of this design is uncertain. Two spiky objects (conceivably impressions of the same thing?) are separated by two linear objects. It is not clear if the objects are figurative or geometric.

- 542 BM 125923**
 Impression on bulla fragment with flat back, perhaps originally disk or test strip.
W JNP; Museum record: JNP TOP
 17.5(ext) × 16(ext)
 Unintelligible shapes, perhaps including a human in the middle.
- 543 Ashmolean 1939.332: 125**
 Impression on part of disk-like bulla with string and basket marks on back.
W CRH W. Ox R. Burial level
 Buchanan 1966, p. 142: 765
 19(ext) × 19(ext)
 The orientation of the design is uncertain. Buchanan understood it as a woman in a striped skirt flanked by two birds. This is possible, but without a parallel I would not exclude some quite different interpretation.
- 544 REG 619**
 Impressions on bulla fragment with groove and string marks on back.
 ST 8: Trench D. Gully fill, probably Akk.
 ?
 The orientation of this impression is unknown, though the original seal was probably of quite good quality. It shows an unintelligible figurative scene, perhaps including an animal and a bird.
- 545 REG 7368**
 Impression on bulla fragment.
 FS 1960: Level 5 court 43, thin layer on floor and under ash layer
 Small
 Sketch after H. McDonald. Line and possible scorpion claw.
- 546 REG 7229**
 Impression on bulla fragment.
W Brak, Surface
 Small
 Sketch after H. McDonald. Object with three projections.
- 547 Ashmolean 1939.332: 143**
 Impression on bulla fragment; irregular crinkled surface on back.
W Above 1938 shaft
 16(ext) × 7(ext)
 Deep flat engraving. Two rectangles above a notched line. A trace underneath may imply the existence of another notched line; alternatively the horizontal line shown at the bottom may be the edge of the seal.
- 548 Ashmolean 1939.332: 107**
 Two rollings on bulla fragment with string and cord marks on the back.
W Royal Shaft
 Buchanan 1966, p. 144: 782
 11.5 × 21?
 Row of at least four objects, perhaps figurative in character?
- 549 BM 125924**
 Brown ceramic (M. Sax) cylinder seal, very low relief, hole not central, part of surface destroyed.
W Museum record: JNP
 Wiseman 1962, pl. 29b
 14.5 × 13.5-14.5
 Unclear rounded shapes, perhaps rampant animals.
- 550 REG 7335**
 Impression on bulla fragment with string marks on back.
W Surface below HH on north side
 15 × 17(ext)
 Drawing after H. McDonald. Probably two rampant animals, in a schematic cut style.
- 551 1980 pottery register 0**
 Impression on fragment of miniature potstand, ht. 30 mm, fine cream fabric.
W CH trench A/C
 14(ext) × 17(ext)
 Perhaps an animal with long horns? - shapes on left.

552 REG 5903

Impression on small bulla fragment with cloth(?) impression.

FS 1926: Sounding in Level 5 court 43, ash patch 1 m below foundations

13.5

Sketch by Brak Expedition. Incomprehensible: swirls or horns.

553 Aleppo Museum

Impression on bulla fragment with grooves on back.

W [None]

18(ext) × 12(ext)

Perhaps an animal with long horns. The orientation of this impression is unknown and it could have been made either by a cylinder or by a stamp.

554 Ashmolean 1939.332: 10

3 rollings, probably on peg sealing, peg diam. c. 20.

W E. Ridge. Bread Pit. Sargon (2)

Buchanan 1966, p.130: 714; "jar mark" in error

16(ext) × 31(ext)

Two rows of animals, four preserved in the top row, two in the lower.

555 Ashmolean 1939.332: 176

Impression on bulla fragment, back rough. See also design 62.

W JNP E. Pal Extn - 2 m

Buchanan 1966, p. 129-30: 711

16(ext) × 25(ext)

Two lions(?) back to back, with object between them described by Buchanan as a "mounted vase". Dot and unclear object upper right. Buchanan compares vases on Uruk period sealings (GMA 222, 264), but this does not seem appropriate to me. I cannot suggest what the object is.

556 Ashmolean 1939.332: 57

Three rollings on a bulla fragment with a curved groove on the back, possibly made by a vessel rim?

W East Ridge Upper levels

Buchanan 1966, p. 140: 757

13 × 26.5

Rampant lion attacks kneeling man; standing man on either side menacing lion, one with spear, the other with axe; terminal star.

557 Ashmolean 1939.332: 115

Rolling on unbaked clay block fragment, roughly cuboidal with a channel at the back. Surfaces smooth and well finished (drawn pl. VII).

W CRH Altar R. - 1.50 below brick floor?

Buchanan 1966, p. 57: 292

15 × 25

Two animals, probably equids, draw a chariot which contains a man; another man behind.

558 REG 5988

TB 14040

Calcite cylinder seal.

SS 1240: Room 21, floor

D. Oates and J. Oates 1993, 185, 169 fig. 16

28 × 13.5

Human holding triangular-topped spear; stag; tree. Bird in upper field and dog(?) below tree.

559 Ashmolean 1939.332: 165

Two rollings on bulla with flattish end and string marks; apparently not peg sealing.

W JNP Long Rm E of New Ct - 3.1 m

Ashmolean 1939.332: 190

Impression on distorted test strip fragment.

W JNP E. Palace EXTN - 2 m

14.5 × 25

Buchanan 1966, p. 142-3: 769

Two horned animals, the second one perhaps a deer, followed by man with plant(?) behind him.

- 560** Aleppo Museum 3714
 Poor quality grey-black soft stone cylinder seal, broken.
W Label: F 714. Top chamber E. of Gt. Ct. nr NE corner. JNP
 22 × 10
 Aleppo II 414
 Row of three animals; possible birds(?) in upper field.
- 561** Aleppo Museum 7746
 Grey faience cylinder seal.
W Field register: Oracle Room, Crest Houses, South side. Level C.
 Iraq IX pl. XXI: 5,6, p. 133-4: F. 720, CH "chapel" 13, third mud floor from the top
 19.5 × 10
 Aleppo II 462
 Two horned animals; small shapes.
- 562** REG 1202 TB 6011
 Frit cylinder seal, complete, grey-brown with no trace of glaze.
 FS 1002: Surface clearance, above revealed doors building
 D. Oates 1985, 173 pl. XXVIe
 23 × 11
 Human or demon with horned head and two animals.
- 563** Ashmolean 1939.332: 112
 Two rollings on bulla with flat surface and hollows on back.
W New Ct.
 Ashmolean 1939.332: 168
 Three rollings on bulla with string mark and material impression on back.
W JNP Rm 9 - 2.60
 Ashmolean 1939.332: 179
 Two rollings on bulla (perhaps "package sealing") with smooth material impression on the back with many hair marks.
W JNP S of Tablet R - 2 m
 19 × 39(ext)
 Buchanan 1966, p. 155: 821
 Man (or demon?) between two caprids, the left one perhaps with two heads.
- 564** Ashmolean 1939.332: 7
 Rolling on clay lump with heavy string impressions.
W E.R. 3rd. Dyn.
 18(ext) × 26(ext)
 An animal and a man; obscure figure (bird?) behind man.
- 565** BM 125896
 Impression on thick bulla fragment with broken back.
W JNP
 Wiseman 1962, pl. 30e
 19(ext) × 23(ext)
 Frieze with an animal in the middle and unclear traces on either side.
- 566** Ashmolean 1930.396
 Impression on bulla fragment, back rough, surface bad.
W Kish Ingharra, Trench B-5
 Moorey 1978, Fiche 2/B09
 Ht. 18(ext.)
 Man with pointed headdress and animal with horn or crest; indeterminate shapes around.
- 567** Aleppo Museum 3764
 Brown ceramic(?) cylinder seal, piece missing from one side.
W In a box containing a clay disk B. 393 and a leather label: [C.] B. 28[1] [LH]. [2?] 1932
 19.5 × 9.5
 Two men with raised arrow-shaped hands, each with a branch behind him; caprid and small v-shape; top and bottom lines.

568 Aleppo Museum 4664

Hard brown stone cylinder seal, both ends worn and probably broken.

W Label: A359 Sub-surf level I(b)

Mallowan 1937, pl. XVII: C3, p. 153 Chagar Bazar site BD, late level 1 (Nuzi period)

12(ext) × 13.5

Aleppo II 417

Row of small overlapping humans above a guilloche band. Very fine engraving. The preserved part of the surface runs about three-quarters round the circumference.

569 Aleppo Museum 6308

Four rollings on peg sealing, peg diam. c. 15 mm.

W [None]

16.5 × 25.5?

Two standing figures face each other. The one on the right has a hatched headdress, a flounced dress, and carries an object. Two more standing figures on right; the right hand one could be the same figure as the one shown on the left.

570 Aleppo Museum 6290

Two rollings on bulla fragment with cord mark and ridged flat surface (i.e. folded material?)

W A 398. Field register: probably dates BD level II

22.5 × 35(?)

Inscription in two lines running the whole height of the field, cased. Interceding goddess in flounced dress; worshipper in plain robe holding up one hand, apparently standing on a low platform; god facing left holding a straight object, one leg advanced onto a small "mountain", split skirt. A trace behind the worshipper may be a filler; another trace behind the god is conjectural. A fragment of a flounced dress is visible to the right of the inscription: it is not certain whether this belongs to the interceding goddess. The worshipper appears taller than the god: this is most unlikely and is probably a result of distortion in the rollings.

571 BM 131742

Impression on bulla fragment with stringmarks on back.

W Museum record: A 396. Field register: from AB in same rubbish which produced tablets A378-384

15(ext) × 24(ext)

"Interceding goddess", "king with mace" and "ascending god", with a small hero and "ascending god" between them.

572 Aleppo Museum

Impressions on bulla fragment; cord marks on back. Part of the same inscription is preserved on another small fragment.

W [None]

Ht. 18 (ext, exc. cap); cap ht. 3.5

Inscription in at least two lines, trace of an arm(?) on right. The lower half of the inscription is obliterated by a second impression showing a man with a beard. Two grooves above both rollings must represent a real or imitation cap.

573 Aleppo Museum 6776

Impression on bulla fragment, perhaps originally located just under the rim of a jar.

W CH. BAZ. S. HL E. END EARLIEST LEVEL [I] [.....EL]

17(ext) × 16(ext)

Seated figure in flounced dress on panelled(?) seat, holding object; behind, ape or monkey above double lines, part of standing man.

574 Aleppo Museum 3716

White cylinder seal with thin grey bands, crazed surface, perhaps burnt quartz.

W Label: A. 361. BD. I

Mallowan 1937, pl. XVII:C4, p. 153: Chagar Bazar site BD, late level 1 (Nuzi period!)

16.5(ext) × 13

Aleppo II 415

Two rampant animals(?) and a human in a long dress which is open in front; in field, star(?) and lozenge. It is not clear whether the crossed lines between the two animals are part of one or both of them or a separate figure.

575 BM 126312

Opaque green stone scaraboid: plano-convex with design on the flat base. Pierced lengthwise; slightly chipped.

W Label: F. 620. Stamp seal JNP Dump

18 × 11 × 5

Winged disk with "streamers"; oval line round rim.

576 REG 1081

TB 6010

Cylinder seal in black stone having designs both on the curved surface and on the flat base; the top was originally a pierced knob but it is broken across the hole, which is not quite central.

W Tell al-Ma'az, surface

Oates and Oates 1988

21(ext) × 11

Two persons in fringed robes, each carrying an object with a double curl at the end. The left person may have a sword at his hip. The heads of both persons have been drilled out when the perforation was made. Tree or plant in each of the two gaps between the persons, one under a winged disk, the other under an unclear object. The stamp design on the end shows a winged lion above a hatched line.

577 Ashmolean 1939.332: 75

Rolling on small bulla with rounded square shape; back is flat with fine string mark running from small knots at either end (sealing for papyrus or leather document?); (drawn pl. III)

W Houses E. of Div. St. - 1 m

Buchanan 1966, p. 121:678; Iraq IX pl. XXIII:3, p. 145: CH, north of room 14, Sargonid debris

21(ext) × 27(ext)

Hero in Persian dress grasps a rampant winged monster with each hand. Fine engraving.

APPENDIX A

SCIENTIFIC EXAMINATION OF THE FORTY CYLINDER SEALS FROM THE COLLECTIONS OF THE BRITISH MUSEUM

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INTRODUCTION

Of the cylinder seals included in the catalogue, the materials of forty from the collections of the British Museum Department of Western Asiatic Antiquities have been identified. This work forms part of a large scale project which is underway to identify the materials of the 2500 or so cylinder seals from the ancient Near East in the Museum's collections (for example, Bimson and Sax, 1982; Sax, 1993 and in preparation). A scheme of nomenclature has been developed for the Museum material to describe the large number and variety of seal bodies and it is used here to describe the forty seals from the Khabur area in Syria which stylistically date to the later centuries of the fourth millennium and to the third millennium BC. Cylinder seals are chiefly composed of simple mineral assemblages while some have been worked in synthetic materials such as ceramic or vitreous bodies.

METHOD AND RESULTS

The material was identified by means of X-ray powder diffraction (XRD) analysis using Debye Scherrer cameras. The method involves the removal of a minute sample but this is usually possible from a blemish on the seal without inflicting noticeable damage. Results of XRD analysis provide data on the crystalline phases present in the sample which, together with examination of the seal body using a low-power binocular microscope, enables most materials to be identified. XRD analysis was occasionally supplemented by non-destructive elemental analysis using air-path X-ray fluorescence (XRF).

Like those from Mesopotamia (see references above), the cylinder seals from Syria were shown to be composed of a variety of mineral assemblages and also several synthetic materials. Details of the materials are given for individual seals in the catalogue; in the case of some stones, the rock type is preceded by the minerals which were identified. The nature of the various materials is discussed below. An indication of hardness (H) of minerals is given by reference to Moh's scale: this empirical scale is based on the relative scratch hardness of minerals and it ranges from talc with a value of 1 to diamond with a value of 10. The values quoted were largely taken from the standard mineralogical text by Berry and Mason (1959) although a few, where stated, were obtained experimentally.

THE MATERIALS OF THE SEALS

Varieties of Calcite CaCO_3 H = 3

The highest proportion of Syrian seals were shown by XRD analysis to be composed of calcite, a form of calcium carbonate. Calcite occurs commonly in nature as veins and as the principal constituent of several rock types, in particular limestone and marble. While the recognition of particular forms of calcite, such as limestone, marble, vein calcite, in geological or mineralogical samples may be relatively straightforward, its identification as a worked artefact can be problematic because of the difficulties of sampling. For instance, the destructive nature of a more detailed examination involving the preparation of a thin section is not acceptable in the case of the seals. Thus the probable nature of the calcite seal bodies has been inferred from consideration of their macroscopical and microscopical characteristics.

Limestone

Seals WA 125798 (428), 126316 (424), 126321 (530), 126324 (440), 126328 (43)

Calcite is the principal constituent of limestone which is a fine-grained sedimentary rock of very wide distribution. Limestone is white when pure but can be variously coloured by impurities. Most of the limestones used for the seals are pale coloured, in shades of white to cream or grey but seal 126324 is more darkly coloured in brown and grey. Seal 126316 is composed of *chalky limestone* which is pure white in colour and particularly fine-grained; such material results from the consolidation of calcareous marine oozes. Chalky limestones are frequently more porous than other limestones which renders them more susceptible to weathering.

Marble

Seals WA 125572 (134), 125796 (92), 126303 (402), 126323 (422), 126325 (452), 126327 (442)

Marble is produced by the recrystallisation of limestone during metamorphism. The resulting interlocking crystalline structure renders it tougher and less porous than limestone and it takes a much better polish. Seal 126323 is termed *limestone/marble* because metamorphism appears to have been limited in this instance and to have caused only partial recrystallisation. The five other calcite seals included in this category are probably of marble rather than limestone. The basic colouring of all six seals is white to cream.

Sparry Calcite

Seal WA 125793 (355)

This seal is composed of grey-green sparry calcite. Such material is macrocrystalline and strongly translucent and has been formed by the crystallisation of calcite in a vein or cavity.

Miscellaneous Calcite Bodies

Seals WA 125799 (50), 125592 (128)

The nature of the pale brown body of seal 125799 is uncertain. It is composed of microcrystalline calcite and is strongly translucent, suggesting that it may be a type of calcite deposit formed by precipitation from lime-rich water in underground cavities, similar to the stalagmitic material sometimes known as "Egyptian alabaster".

The remaining extensively worn fragments of seal 125592 are composed of a cream coloured calcite. Pitting present in the fragments is perhaps consistent with the seal having originally been worked in a natural stone such as limestone which, subsequent to use, has been damaged by weathering.

Aragonite, shell CaCO_3 $H = c. 3.5$

Seal WA 126330 (285)

Shells have layered microstructures and their material is commonly aragonite, another form of calcium carbonate. This seal has been cut from a large columella of a Meso- or Neogastropod indigenous to the Indian Ocean.

Gypsum, alabaster $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$ $H = 2$

Seal WA 126322 (279)

Gypsum is the most common of the sulphate minerals, occurring widely as an evaporite deposit; fine-grained, massive gypsum is geologically known as alabaster (NB "Egyptian alabaster" is a form of calcite). This seal has been worked in white alabaster but it is poorly preserved with its surface raised in places. The distortion has probably been caused by weathering during burial: gypsum is soluble in water and parts of the seal appear to have recrystallised from solution.

Fluorite CaF_2 H = 4

Seal WA 126426 (51)

This seal is composed of strongly translucent, colourless fluorite, an unusual material for cylinder seals. Fluorite is frequently found as a vein mineral in association with metalliferous ores such as those of tin and lead.

Serpentine, Chlorite and Talc

Serpentine (serpentine) $\text{Mg}_3(\text{Si}_2\text{O}_5)(\text{OH})_4$ H = 4-6

Chlorite $(\text{Mg,Al,Fe})_{12}[(\text{Si,Al})_8\text{O}_{20}](\text{OH})_{16}$ H = 2.5

Talc (steatite or soapstone) $\text{Mg}_6(\text{Si}_8\text{O}_{20})(\text{OH})_4$ H = 1

These minerals are hydroxy-magnesium (plus or minus iron and aluminium) sheet silicates and they frequently occur in massive, fine-grained forms of medium to low hardness which are easily carved and suitable for use as seals. The general chemical formulae of the three minerals are as given above but widespread elemental substitution takes place in chlorite and also, to a lesser extent, in serpentine. The term *serpentine* is used to describe the rock composed chiefly of serpentine. Similarly the term *steatite* (or soapstone) is used to describe the rock composed chiefly of talc. The colour of all three minerals may be green, brown, red or black and is chiefly due to the iron content.

Serpentine

Seals WA 125571 (65) and 126318 (232)

Seal 125571 is dark coloured appearing black, while seal 126318 has been worked from a particularly attractive specimen which is coarsely veined in black and white-green. The material of the latter seal is particularly reminiscent of the skin of a serpent.

Chlorite

Seals WA 126089 (BM I pl. 4j), 126450 (529)

Both seals are dark coloured, appearing black.

Steatite (or soapstone)

Seals WA 125390 (518), 126329 (523)

Both seals have been worked from black steatite.

Fired/glazed Steatite

Seal WA 125591 (52)

This piece forms the broken half of a seal. It is weathered and now consists of a bright white surface partially covering a white and grey core. XRD analysis showed the core to be composed of steatite, a soft mineral (H=1), while the bright white surface, which is c. 0.1 mm to 0.4 mm thick, was found to be considerably harder (H=6-8) and is composed of enstatite. Processes of working in steatite followed by heat treatment to produce hardened surfaces by dehydroxylation and without distortion appear to have been appreciated at least by the third millennium BC in Mesopotamia and Egypt; the refractory properties of steatite also allow it to be glazed (see Moorey, 1994). The fragmentary seal might immediately appear to be composed of a type of fired steatite similar to the body termed "burnt steatite" by Beck (1934). Beck confirmed experimentally that it is possible to whiten (and slightly harden) the surface of steatite by treatment with soda or salt and heat. However, Frankfort (1939) referred to such bodies as "glazed steatite" and, although no glaze now remains on the hard white surface of this seal, the possibility that seal 125591 was originally coloured by a glaze cannot be discounted.

Tuff H = 4-4.5 (experimentally obtained)

Seal WA 125570 (57)

XRD analysis showed this black seal to contain quartz and also a plagioclase feldspar. The composition, its overall texture and the matt polish of this seal are consistent with it being a tuff, a rock consisting mainly of volcanic ash.

Ivory H = c. 2.5

Seals WA 125596 (419), 126326 (433)

A mineral close to hydroxyl apatite, a calcium phosphate, was identified by XRD analysis in both the seal bodies. Ivory and bone are characterised by this composition but the layered microstructure of the two cream seals is typical of ivory rather than bone.

Faience

Seals WA 125797 (409), 126425 (432), 138132 (434), 138133 (431), 138134 (437)

Five seals are composed of faience, a body sometimes referred to as composition, sintered quartz or Egyptian faience. Faience was produced by firing quartz sand or ground quartz with a small proportion of alkali to act as a flux and often also with a colourant; the surface of the body was usually glazed. Bodies manufactured in this way are thus composed of quartz grains held together in a glassy matrix but they frequently survive in poor states of preservation because weathering may have caused the loss of several components from the glassy phase, particularly alkali and copper, the commonly used blue colourant. The Syrian seals, with the exception of 138134 which is cracked and may have been additionally damaged by fire, have largely retained their original shapes with detailed intaglios. The cores appear to have been uncoloured except for seal 126425 which is pale blue-green. However, weathering has resulted in extensive loss of glaze: two seals, 126425 and 138133, bear the fragmentary remains of a blue-green, copper (by XRF analysis) glaze while an almost continuous black manganese-rich (by XRF analysis) layer extends over the surface and around the perforation of seal 125797. This latter seal would appear to be amongst the earliest faience bodies to have been coated with a black glaze (Moorey, 1994).

Ceramic

Seals WA 125618 (532), 125924 (549), 126315 (412), 138135 (460), 125794 (335), 126319 (527), 126320 (114)

The first four seals listed above are variously composed of somewhat crude unglazed ceramic (fired clay) bodies. Most of the bodies contain large inclusions and they have all been very roughly moulded.

Although the composition of the latter three seals, 125794, 126319 and 126320, is less certain, observations suggest that they are also ceramic but of a considerably superior quality to the first four bodies. The three bodies are similarly compact and fine-grained; they are grey or brown in colour with darker surfaces and they have been precisely shaped rather than moulded. XRD analysis showed them each to be chiefly composed of calcite and quartz. These observations might suggest that they may have been worked from naturally occurring siliceous limestones or calcareous siltstones. However, because the intaglios on all three seals appear to have been executed in plastic bodies, it would seem more likely that they are ceramic.

Lime plaster

Seal WA 126317 (528)

One seal is composed of lime plaster: the white body has been roughly moulded and engraved and is composed of calcite (detected by XRD). Lime plaster is a durable material but its production is a lengthy and elaborate process. It involves heating limestone to a high temperature of about 800-900° C, slaking the quicklime so formed in water to form the hyroxide and finally, applying and shaping the calcite plaster as a paste.

CONCLUSION

Half the seals from Syria were shown to be composed of stones of low hardness ($H = 1$ to 3.5) while two seals are of ivory or similar hardness. One seal was carved in steatite, a particularly soft mineral, which was hardened and possibly also glazed by subsequent treatment. Only four seals were worked from harder minerals with H ranging from 4 to 6. Synthetic bodies, faience, ceramic and plaster, were used for almost a third of the seals.

The majority of the seals are either very dark, appearing black, or white to cream in colour. More colourful seals are provided only by the blue-glazed faience bodies (probably four) and possibly also by one fired/glazed steatite body.

Although the relatively small number of seals from Syria does not allow meaningful correlations to be made either between material or colour and the stylistic grouping, it is interesting to compare the materials of these seals with those of other contemporary cylinder seals in the collections of the British Museum (c. 350 Uruk to Early Dynastic III seals and c. 240 Akkadian seals). During the earlier periods until around Akkadian times, soft materials, such as the various calcareous stones and chlorites etc, predominated in both Syria and Mesopotamia. However, some differences are apparent even in this small group: the only examples of ivory and fluorite in the Museum's collections of cylinder seals are those described here from Syria. In later times, contemporary with the Akkadian period, the materials used in Syria appear to have been generally softer than those used in Mesopotamia.

A relatively high proportion of the seals from Syria have synthetic compositions but this may reflect the manner of their acquisition (excavated, collected directly from the field or bought) and interpretation of such data should be approached with caution. Synthetic bodies are frequently very poorly preserved and are therefore often unattractive to collectors/dealers. In the case of the seals in this collection, almost all have either been excavated at Tell Brak or Chagar Bazar or brought back by Mallowan from other sites in the Khabur region.

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APPENDIX B

THE INSCRIPTIONS

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INTRODUCTION

For convenience and easy reference every seal in this volume which bears even slight traces of script is included in the catalogue given below.¹ The number of complete or reconstructable legends is regrettably small, but the material does provide some interesting information. Except two legends dating to the early second millennium, one more specifically to the reign of Šamšī-Adad I (ca. 1800 BC), and probably both from Chagar Bazar (440 and 441), the material is of mid-to-late third millennium date, ranging from the late ED period to post-Akkadian times (316), but with a heavy emphasis on the 24th - 23rd centuries BC, i. e. the period centering on the Old Akkadian presence at Brak. The historically most significant inscriptions are 316 and 317, respectively that of Talpuš-atili, a post-Akkadian ruler of Nagar, and that of Itbe-laba, an Akkadian governor (*ensī*) of Gasur (later Nuzi), and have already been published and studied previously. No. 318 is potentially important on a similar level, being the inscription of another *ensi*, whose seat of government, however, is unfortunately unclear. 319 and 320, finally, can both be securely related to the reign of Naram-Sîn.

The onomastic material supplied by the inscriptions is really too small to provide any statistically secure conclusions on ethno-linguistic patterns, but we may refer to a recent study of the IIIrd millennium onomastic material from the Habur region by the Italian scholar A. Catagnoti (in press), which also takes most of the evidence given here into consideration. According to this study the oldest, pre-Sargonic, material suggests the existence of an independent Semitic dialect in this area, distinct from the linguistic evidence from the Ebla, Mari, and Kish regions. Most of the PNs in the Brak corpus of seal inscriptions published here find their best parallels, however, in the southern Old Akkadian milieu, viz. 307: Pūšu-ṭābu, 308: Išar-mūpī, 318: KA-Mer, 323: Ilīš-takal, 325: Šu-Adda(?) and Bēlī-kēn, 362: Dababa, 370: Šu-Adda and Bēlī-ṭābu, 373: Ahu-ahī, while others are unclear or unparalleled elsewhere. Accordingly many or most of the seals with these names seem likely to have belonged to Akkadian officials, and to date to the time of Old Akkadian dominance in the north.

155 - Remains of 2 lines with illegible traces.

156 - The traces above scorpion in center could possibly be from one or two signs, but might also be remains of the lions head which occurs elsewhere together with a scorpion (cf. 240 and 241). The same applies to no. 159.

157 - Remains of 2 lines.

1	[.....]-ma?
2	[.....]-du

159 - Cf. 156.

211 - This difficult inscription was discussed in Oates and Oates 1991, 137. A suggestion referred to there supposes the identity of the wheel-shaped symbol as the sign AN, but disregarding this as a mere symbol we have the

¹ The catalogue only treats the epigraphic evidence and readers are referred to the main catalogue in this volume for all other details. The author wishes to express his sincere gratitude to Aa. Westenholz who reviewed the manuscript at draft stage and contributed substantially to the final version. A. Catagnoti and M. Bonechi also reviewed the material and are warmly thanked for several pertinent suggestions and for supplying me with a preprint of a forthcoming article (Catagnoti, in press). Although I have had the opportunity to study a number of the inscriptions from the originals, either in the field at Tell Brak, or in the National Museum in Deir ez-Zor, the basis for the readings is the excellent drawings produced by D. Matthews.

(reversed) signs *mu-rí-iš*. Such a reading is supported by the occurrence of an identical PN at Ebla (Archi and Biga 1982: no. 192, v. I: 1), and possibly by the inscription on 346 (cf. below).

240 and 241 - The objects flanking the scenes on these two seals could be a kind of stand, but also resemble the cuneiform signs QA/BI and TI in conjunction (most clearly in 240), but possible implications of this observation are not clear to me. Discounting the two horizontal 'edges' at the top of the 'stand', however, we are left with the configuration of the sign NAGAR (= probably the ancient name of Brak). This line of thought is somewhat supported by the left portion of the seals, where the uppermost part of the 'stand' is being manipulated by a seated figure (most clearly in 241), and thus might be an attachment to the 'stand' itself. In sum it seems possible that these two seals employed the ancient name of Brak in an emblematic manner.

282 - Remains of 2 lines.

1	[.....]- ^ʾ x ^ʾ -um
2	ir ^ʾ x ^ʾ x ^ʾ

290 - Remains of 1 line with illegible sign.

292 - Remains of 2 lines with traces.

303 - Illegible remains of 2 lines.

304 - 2 lines with illegible traces.

305 - Remains of 1 line. For the inscription see Gurney in Buchanan 1966: 225 (no. 416).

1	[.....]-lu-rí-im
---	------------------

307 - 1 line with complete PN (cf. Catagnoti, in press).

1	<i>pù-su-du</i> ₁₀	<i>Pūšu-ṭābu</i>
---	-------------------------------	------------------

308 - Legend of Išar-mūpī, the cup-bearer. For the PN see Catagnoti, in press.

1	<i>i-šar-mu-b</i> [^ʾ]	Išar-mūpī
2	<i>silà-šu-du</i> ₁₀	cup-bearer

313 - Remains of 3 lines with illegible traces.

314 - Remains of 2 lines with faint traces.

316 - Legend with 4 lines in 2 registers. The inscription has been studied in detail in Matthews and Eidem 1993.

i	<i>tal-pu-za-ti-li</i>	Talpuš-atili,
	^d utu <i>ma-ti</i>	Sun (god) of the country
ii	<i>na-gár</i> ^{ki}	of Nagar
	<i>dumu</i> ^ʾ x ^ʾ x ^ʾ [.....]	son of

317 - Legend of Itbe-Laba, *ensi* of Gasur (Nuzi). Published previously in Illingworth 1988: 98f.

1	<i>it-be-la</i> - ^ʾ ba ^ʾ	Itbe-laba,
2	<i>ensí</i>	<i>ensi</i> of
3	<i>ga-súr</i> ^{ki}	Gasur

318 - Legend of KA-Mer, *ensi* of unidentified locality. For discussion of the PN see Catagnoti, in press.

1	[K]A-me-er	KA-Mer,
2	<i>ensí</i>	<i>ensi</i>
3	[x]- ^ʾ x ^ʾ -b/pum ^{ki}	of-Bum

319 - Legend of scribe, servant of Naram-Sîn.

i	ṛd ¹ na-ra-am- ṛd ¹ zu-en	Naram- -Sîn,
ii	[an a-k]â-dē ^{ki} ṛx x x ¹ ṛdub ² -sar ² ir-zu	[god ² of Ak]kade, ṛPN ¹ ṛscribe ² (is) his servant.

320 - Remains of legend in 2 registers; servant(?) of Naram-Sîn.

i	na-ra-am- ^d en-[zu]
ii	ṛx ¹ [.....]

321 - Legend of Irdani(?), scribe. For the PN see Catagnoti, in press.

1	ir ² -da-ni	Irdani(?)
2	dub-sar	scribe

322 - Remains of 2² lines. The sign KAL is visible at end.

323 - Legend of Ilīš-takal, son of Pūšu-kēn.

1	[i]-lī-iš-ṛda ¹ -[ga]	[I]līš-takal
2	[dumu p]ū-su-G[I]	[son of P]ūšu-kēn

324 - Remains of 2 lines. The traces seem to parallel part of the first register in 316, and could be from another royal seal, but this is not certain.

1	[.....]-l[i ²]
2	^d utu ¹ ? ma ² -[ti]

325 - Legend of Šu-Adda(?; cf. 370), son of Bēlī-kēn. The first PN is listed in Catagnoti, in press, as "dingir-da²-um", which should now be disregarded.

1	[š]u ² -AN-ṛā ² -da ² -um	[Š]u-Adda(?)
2	ṛdumu ¹ be-lī-GI	son of Bēlī-kēn

329 - Traces of 2 signs in field.

1	[.....]ṛx ¹ -hu
---	----------------------------

331 - Remains of 1 line. See Catagnoti, in press.

1	[ša]r-ru-ni [(...)]
---	---------------------

340 - Remains of 2 lines. Cf. no. 331.

1	šar-ru-n[a ² (-x)]
2	ṛir ¹ ?[.....]

346 - The inscription on this important seal is difficult to read. That the owner is identified as a "scribe" (dub-sar, i. e. an official) is clear (cf. Oates and Oates 1991: 135), but the rest seems to make the best sense if we assume that the inscription, like that of 211, is reversed. This indeed may yield the same PN as in 211, and if the reading should prove correct it seems highly probable that we are dealing with two seals belonging to the same high official. Given the different styles of the two seals and the spatial/functional distribution of the excavated impressions this possibility raises some interesting questions. The PN *mu-rī-iš* (cf. above sub 211; interpretation unclear, but the name is probably of Semitic derivation) seems most likely to have been carried by a local figure. The legend is in any case rather awkwardly placed, and it may well have been added locally to a seal brought from the South.

- 1 mu-
- 2 𐎠𐎼𐎫𐎠𐎹
- 3 dub-sar

362 - Legend with isolated PN, Dababa (cf. Catagnoti, in press).

- 1 da-ba-ba

364 - Possible traces of signs in field.

368 - Remains of 2 illegible lines.

370 - Legend of Šu-Adda. Cf. Lambert 1987: 14-5. For the PNs see Catagnoti, in press. See also above no. 325.

- | | | |
|---|------------------------|---------------------|
| 1 | šu-dim! | Šu-Adda |
| 2 | be-lf-du ₁₀ | (lord of) Bēlī-ṭābu |

371 - Remains of 1 line with traces.

372 - Remains of 2 lines. Reading and interpretation unclear.

- 1 𐎠ur[?]-sa₆[?]-[x]
- 2 [dumu[?]] šu-ma-[.....]

373 - Legend of Ahu-ahī, scribe, son of For the PN cf. Catagnoti, in press. In l. 3 one expects a patronym, which seems to contain the element -AM found in other Habur PNs (cf. *ibid.*, sub "*a-bū-AM*").

- | | | |
|---|-------------------------------|--------------|
| 1 | 𐎠a [?] -hu-a-hi | Ahu-ahī |
| 2 | dub-sar | scribe |
| 3 | 𐎠dumu [!] ? BI/GA-AM | son of |

375 - Remains of 1 line. For the PN Ikšutum see Catagnoti, in press. The similar PN *ig-su-ud* is at Ebla carried by three different high-ranking individuals.

- 1 ig-su-t[um[?]]

387 - Remains of 1 line with illegible traces.

394 - Remains of 2 or 3 lines. Readings uncertain.

- | | | |
|---|----|-------------------------|
| a | 1' | 𐎠x [?] [.....] |
| | 2' | muš-[lah] |
| b | 1" | [.....]-na |

400 - Possible traces of writing.

401 - Remains of 1 line with illegible traces.

570 - Remains of legend in Old Babylonian script (from Chagar Bazar). Names compounded with the DN Il-aba are fairly rare, and the figure mentioned in the second line may be identical with a certain Puzur-il-aba, recorded as army commander under Išme-Dagan and active in the Habur (*ARM* IV 29:16). It would be no surprise to find a son or other associate of his at Chagar Bazar in the late 18th century.

- | | | |
|---|--|------------------------------------|
| 1 | [.....-an]-a-ba ₄ |Il-aba |
| 2 | [dumu [?] k]a [?] +ša-𐎠an [!] ?-a-ba ₄ | [son [?] of Pu]zur-il-aba |

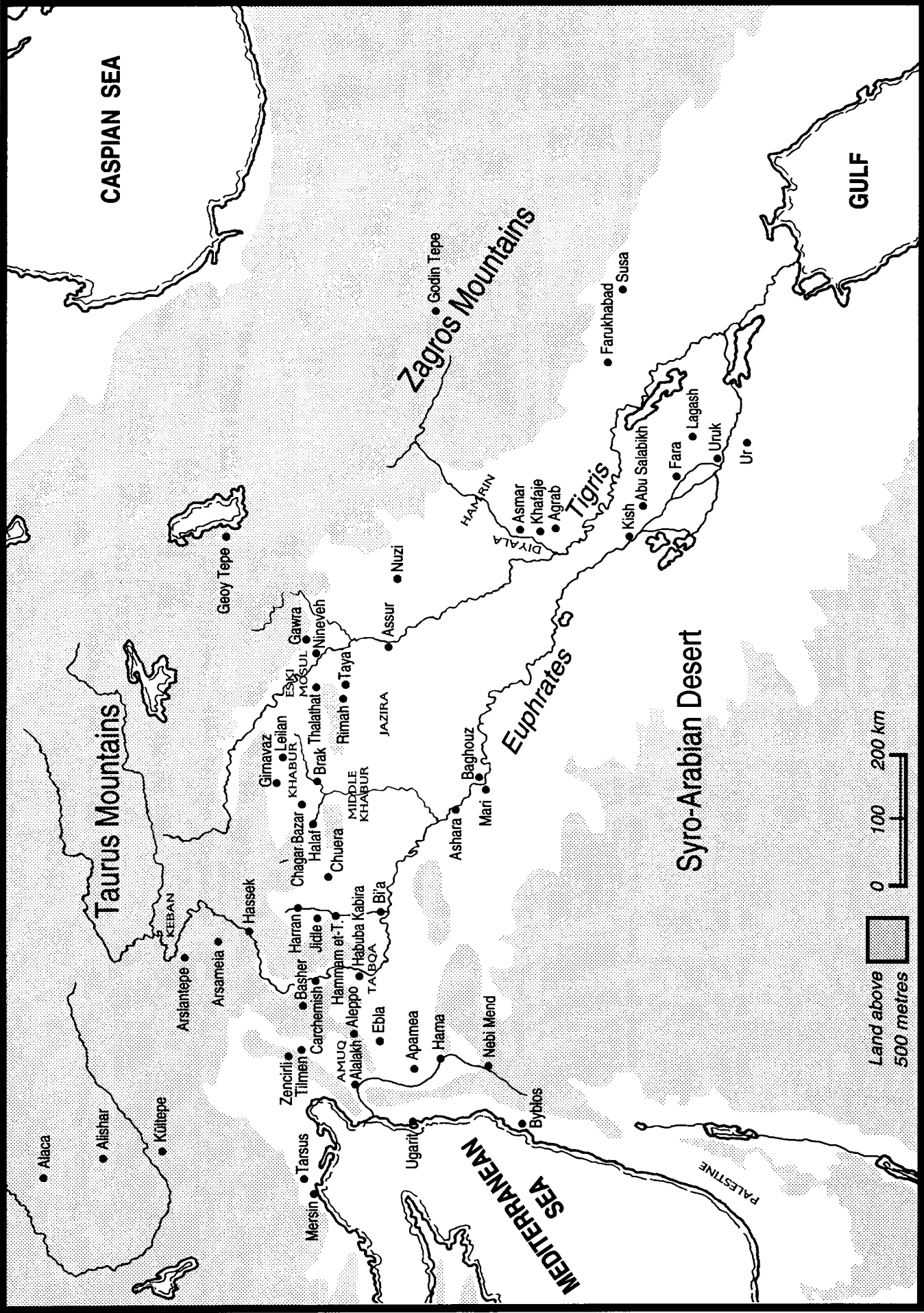
572 - Remains of legend in Old Babylonian script. Servant of Šamšī-Adad (the piece has no provenance, but seems likely to stem from Chagar Bazar).

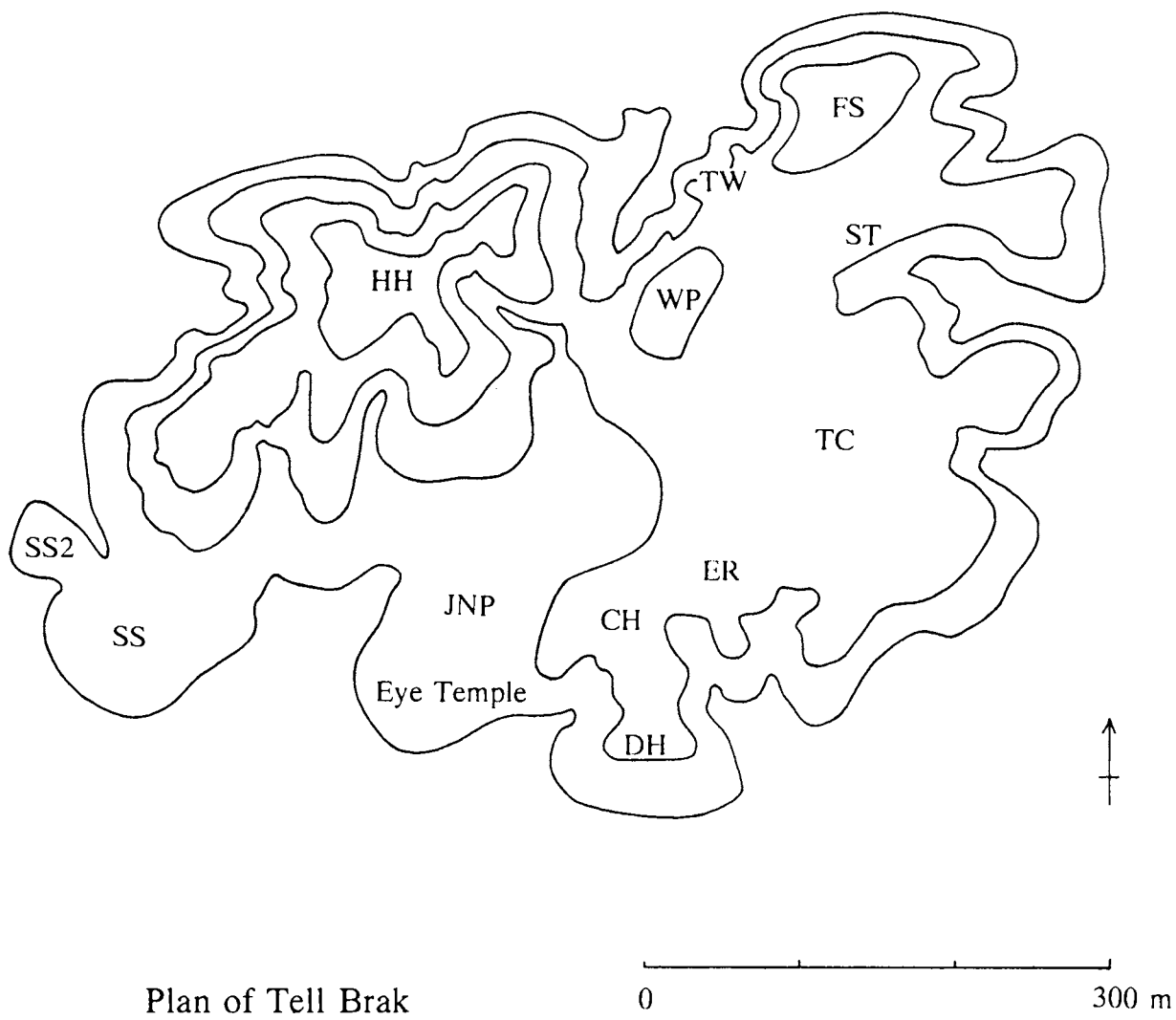
- | | | |
|---|----------------------------------|-----------------------|
| 1 | d𐎠x x [?] [.....] | |
| 2 | [i]r d [?] ut[u-ši-dim] | servant of Šamšī-Adad |

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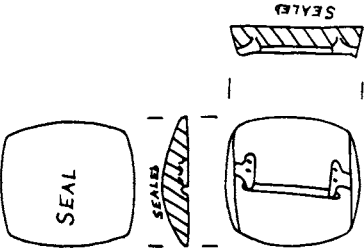
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Plates

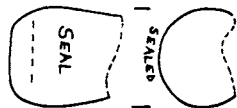




Plan of Tell Brak

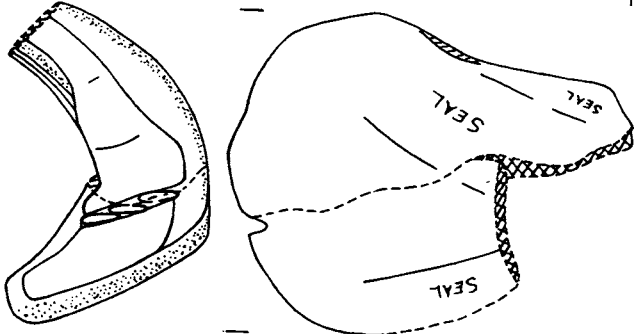
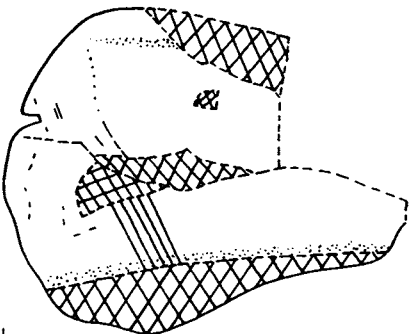
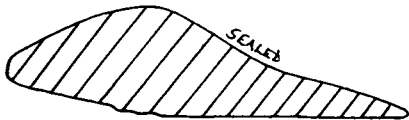


577. Ash 1939.332(75)

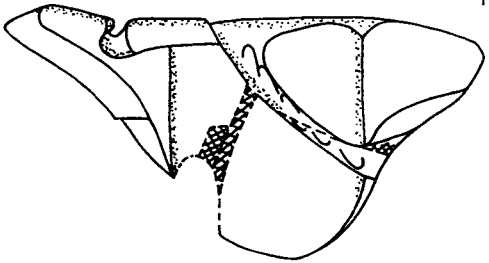
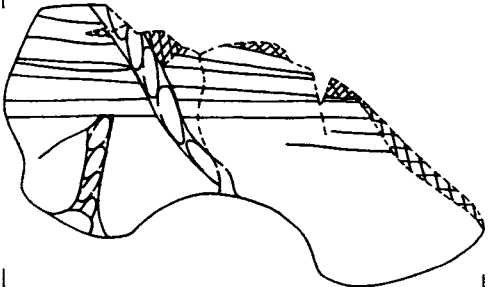
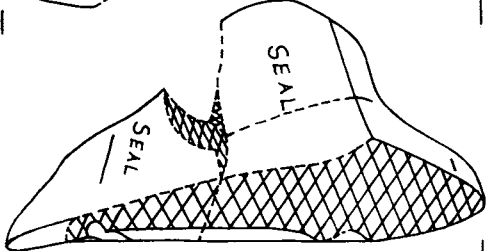
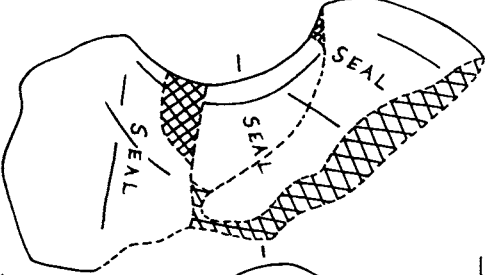


47. Ash 1939.332(109)

Fig. a Various

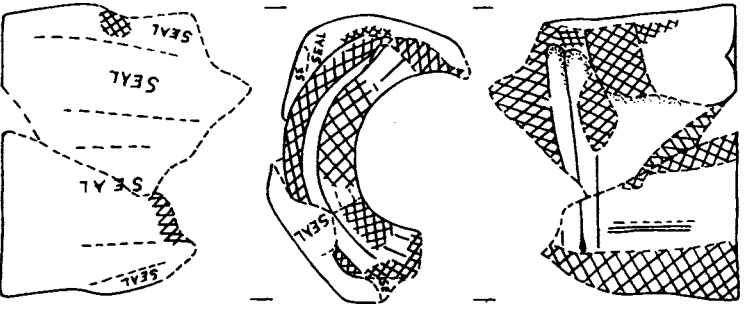


79. Ash 1939.332(206, 213)



79. Ash 1939.332(207, 211, 212)

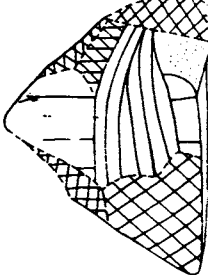
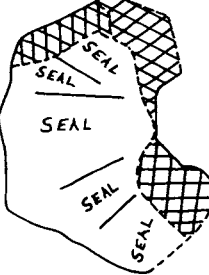
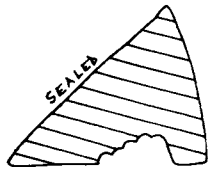
Fig. b 79



288. Ash 1939.332(16, 40)

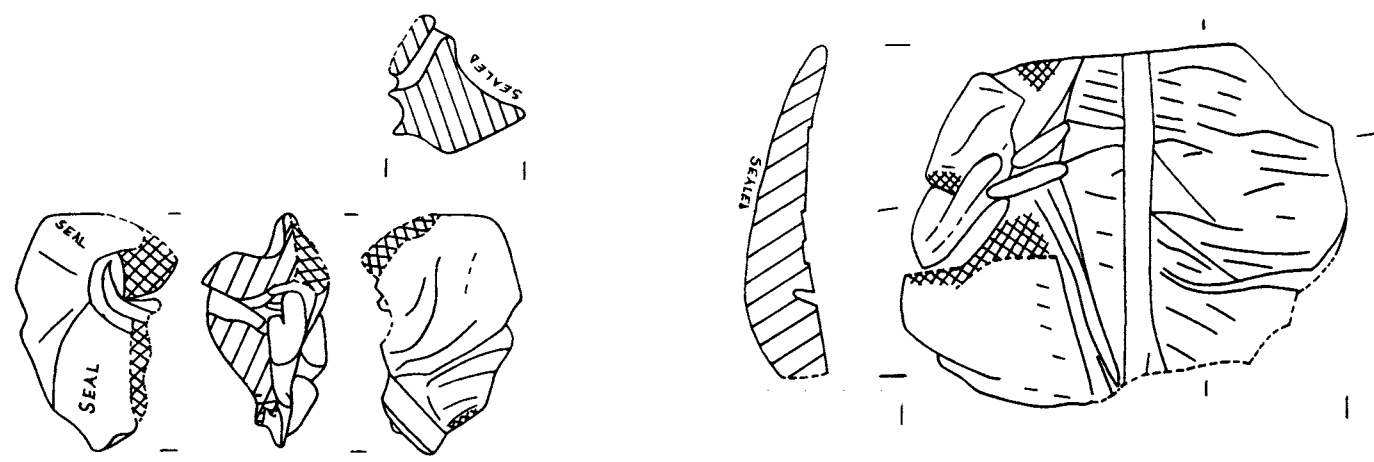


Fig. c Peg sealing

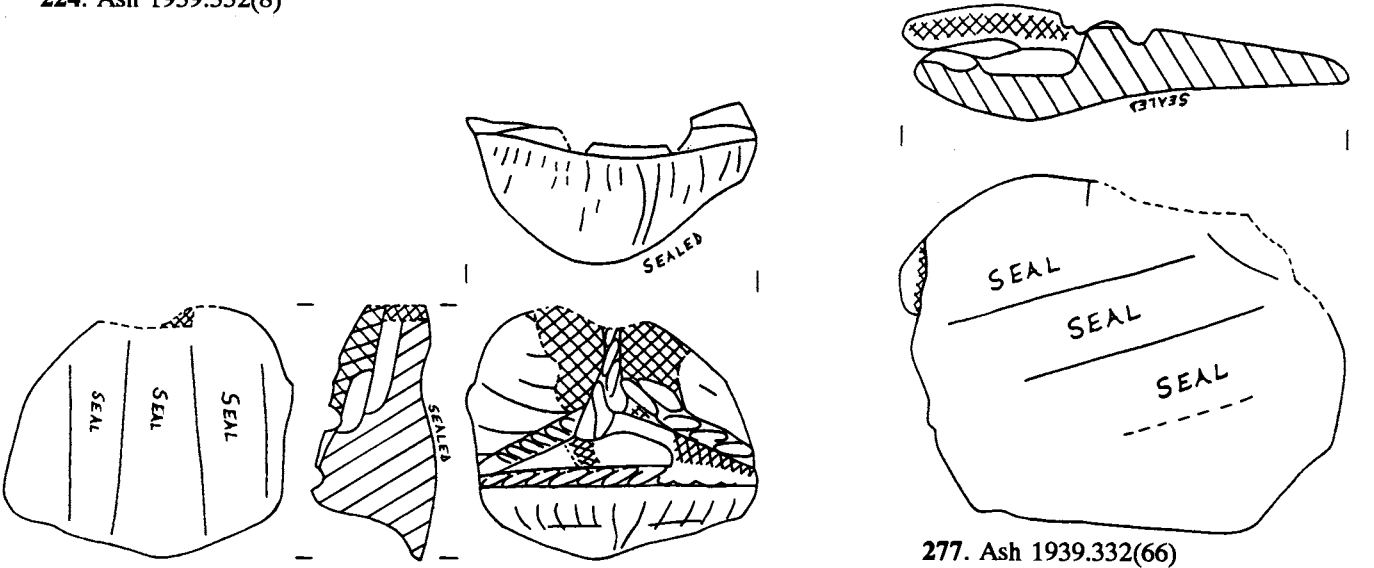


94. Ash 1939.332(105)

Fig. d Angular peg sealing

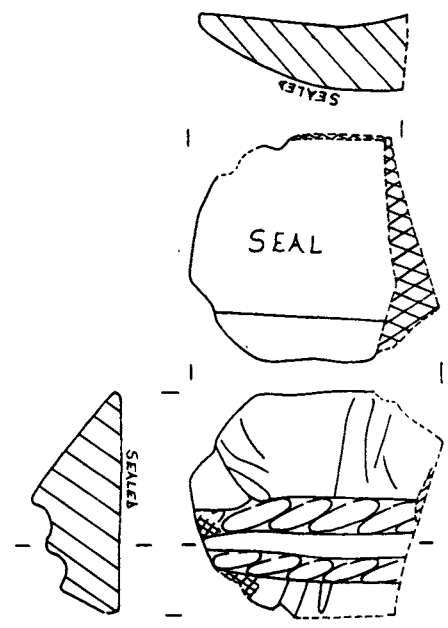


224. Ash 1939.332(8)

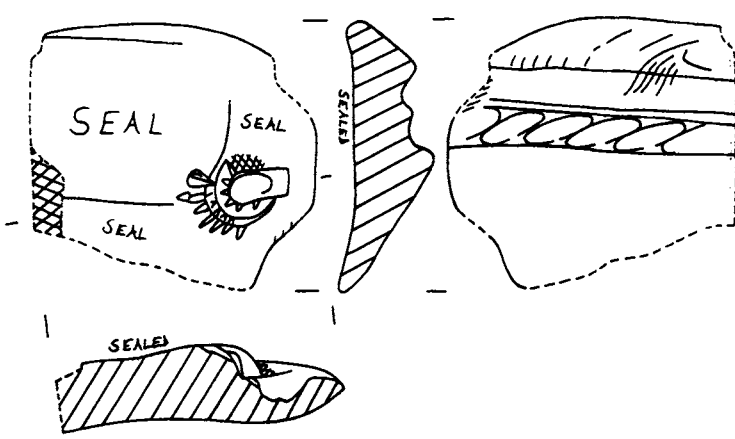


277. Ash 1939.332(3)

277. Ash 1939.332(66)

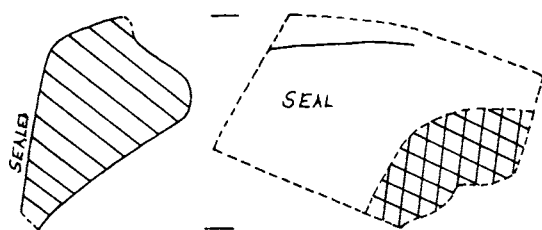


476. Ash 1939.332(60)

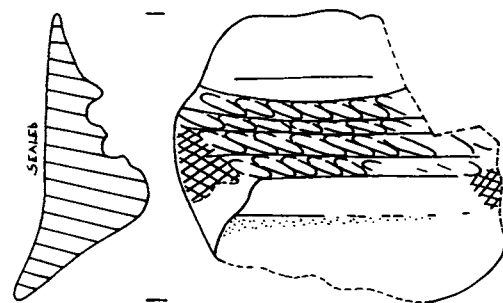


476. BM 126361

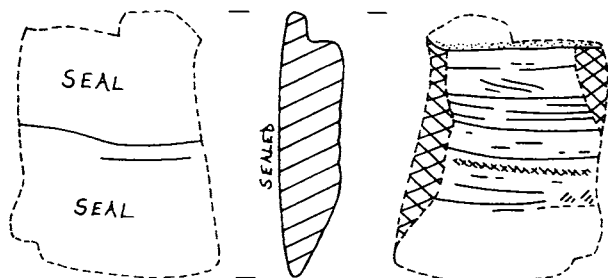
Fig. e "Package sealings"



115. Ash 1939.332(161)



369. BM 126362



364. BM 125870

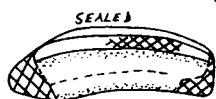
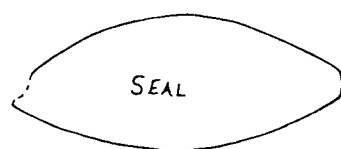


Fig. f Jar sealings



145. Ash 1939.332(130)

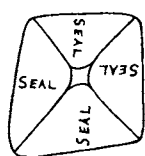
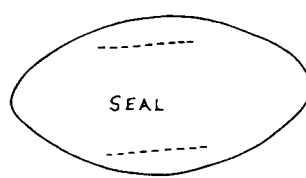
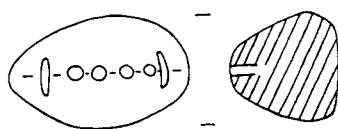


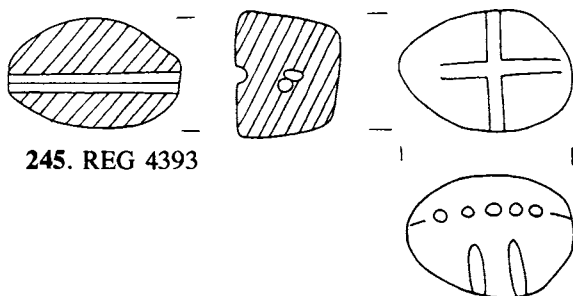
Fig. g Early docket type



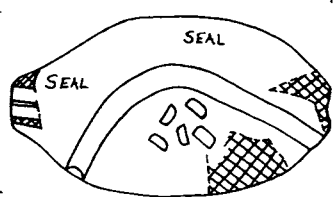
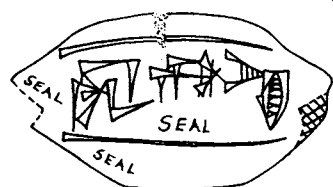
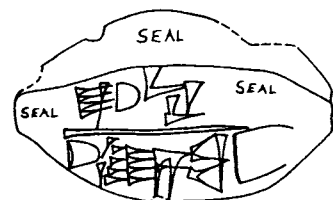
146. BM 129370



242. REG 3974

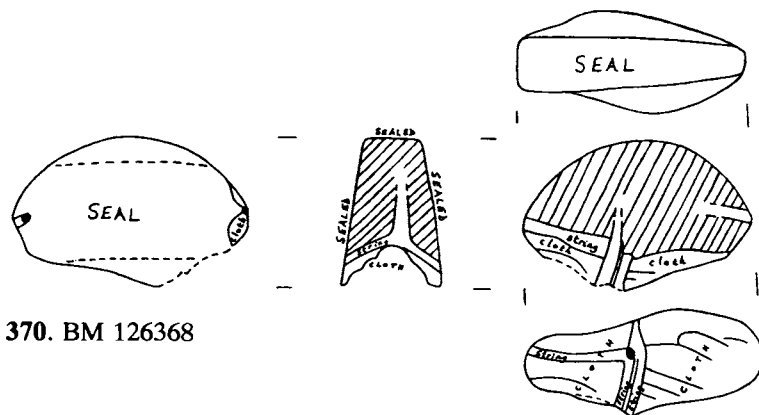


245. REG 4393

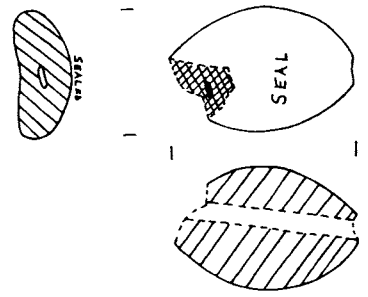


219. BM 131690
Fig. i Inscribed docket

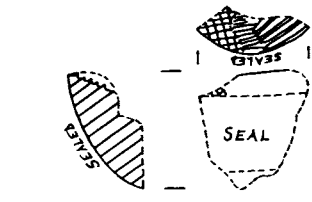
Fig. h Akkadian docket types



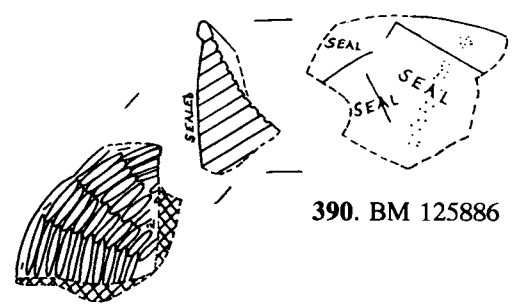
370. BM 126368



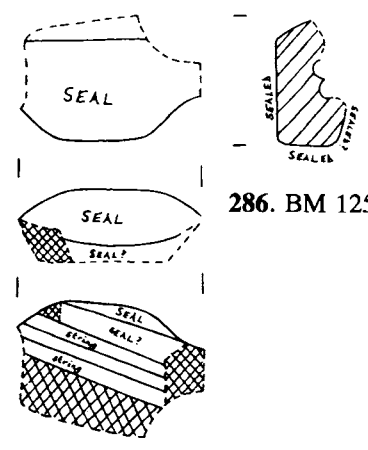
372. BM 125908



171. Ash 1939.332(72)



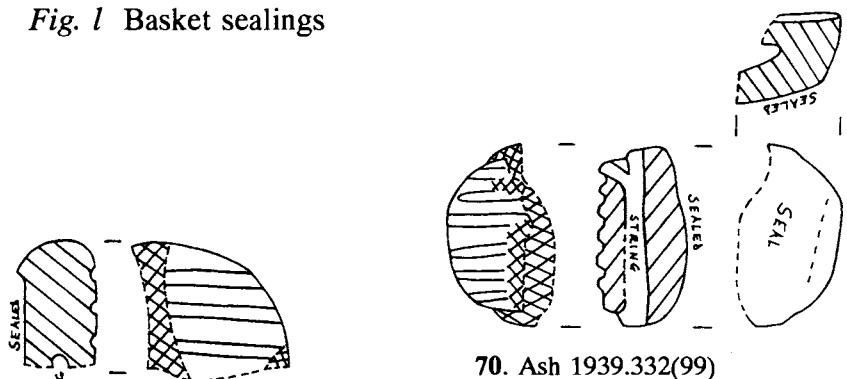
390. BM 125886



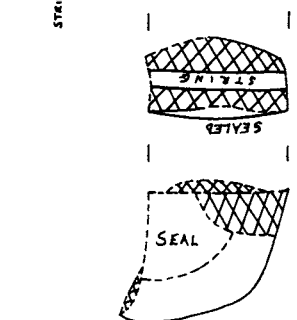
286. BM 125892

Fig. k Comparable to "flat bulla"

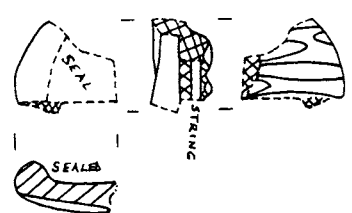
Fig. l Basket sealings



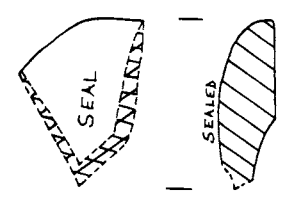
70. Ash 1939.332(99)



9. Ash 1939.332(14)



11. Ash 1939.332(141)

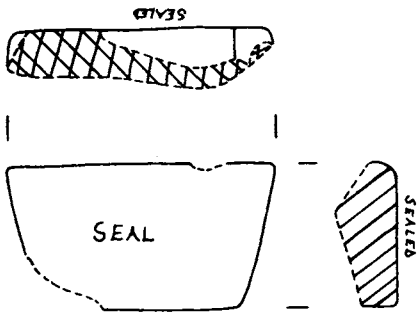


27. Ash 1939.332(23)

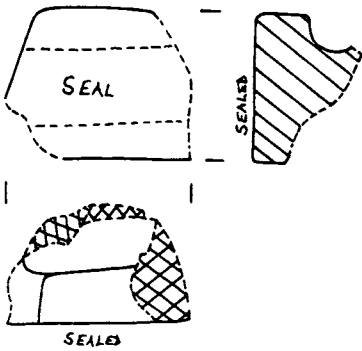
Fig. n Disk sealing

Fig. m "Basket disks"

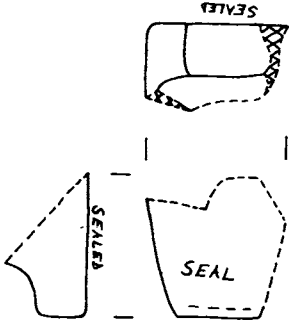
VII



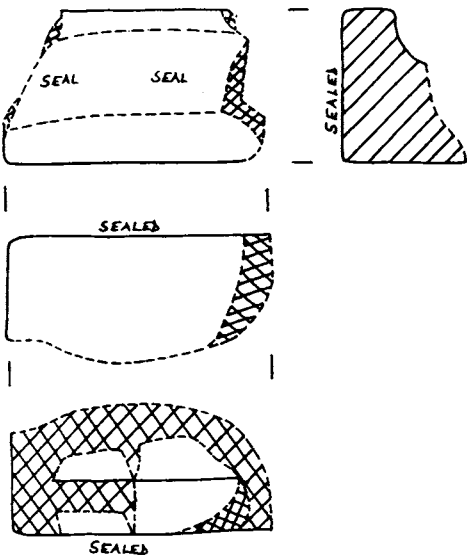
280. Ash 1939.332(131)



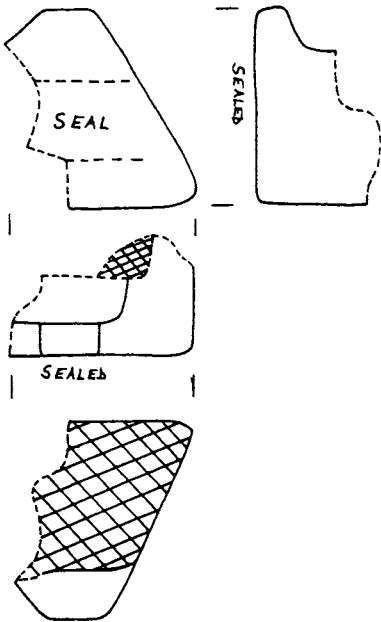
557. Ash 1939.332(115)



280. Ash 1939.332(196)

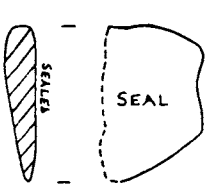


40. Ash 1939.332(210)

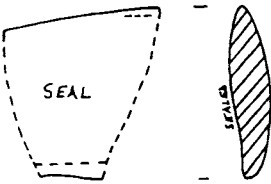


40. BM 125867

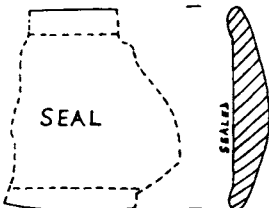
Fig. o "Block sealings"



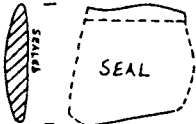
311. Ash 1939.332(74)



236. Ash 1939.332(123)

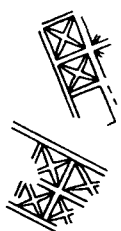


142. Ash 1939.332(39)

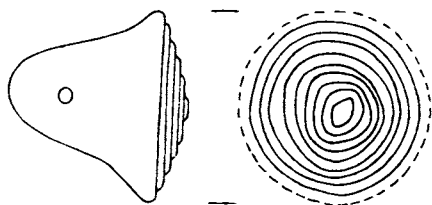


182. Ash 1939.332(118)

Fig. p "Test strips"



1. Chagar Bazar?



2. Chagar Bazar (scale 70%)



3. JNP



4. TD



5. Chagar Bazar



6. Eye T. shafts



7. Eye T. area



8. FNP



9. ER



10. No provenance



11. Eye T. shafts



12. Eye T. shafts



13. BT



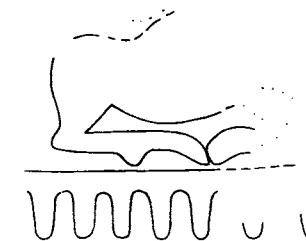
14. Eye T. shafts



15. JNP



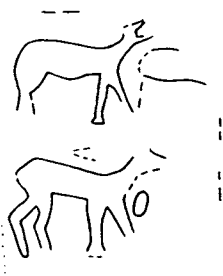
16. JNP / Eye T. area



17. MD



18. No provenance



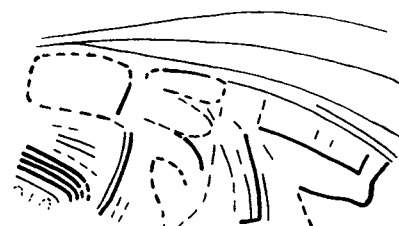
19. Eye T. shafts



20. [FNP]



21. Eye T. area



22. TD



23. Tell Kashkashok



24. No provenance



25. Eye T. shafts



26. JNP

IX



27. MD



28. No provenance



29. Eye T. shafts



30. "Donkey Hill"



31. JNP



32. MD



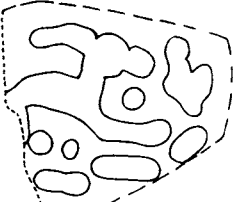
33. JNP



34. MD



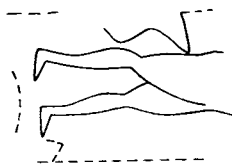
35. Eye T. shafts



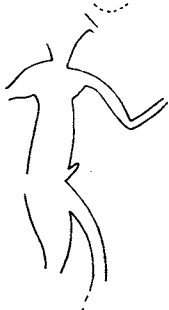
36. Brak



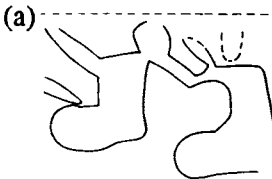
37. Eye T. shafts



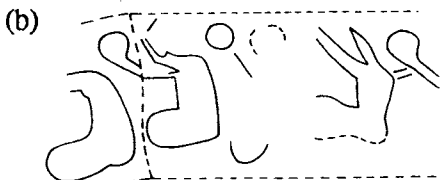
38. Eye T. shafts



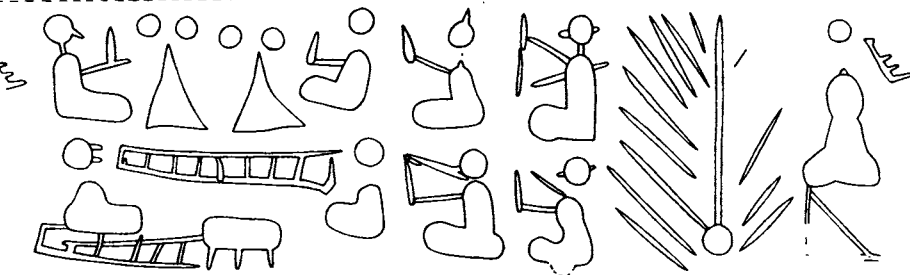
39. No provenance



(a)

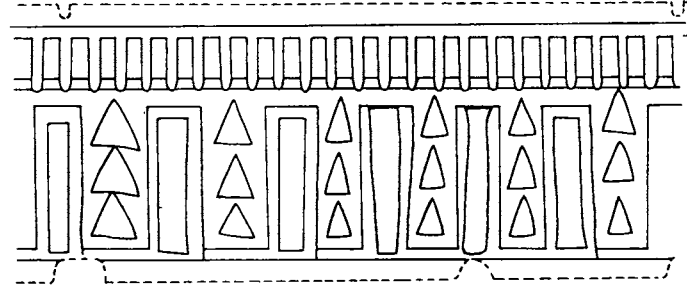


(b)

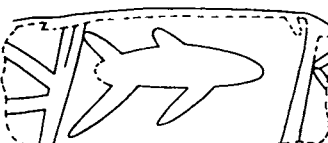


41. JNP

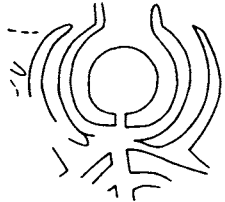
40. CH? / Eye T. area



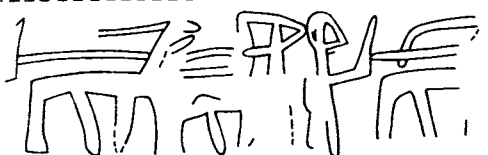
42. Eye T. area



43. No provenance



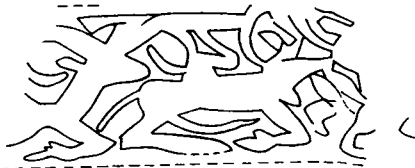
44. JNP



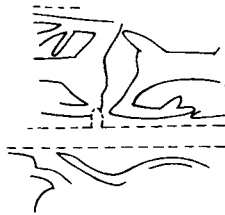
45. FS under level 3



46. JNP



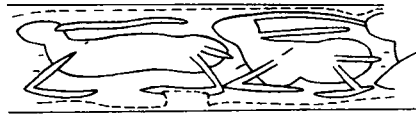
47. JNP



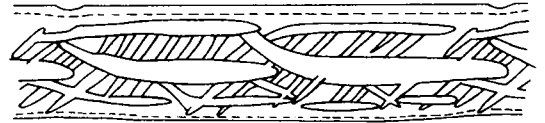
48. Eye T. shafts



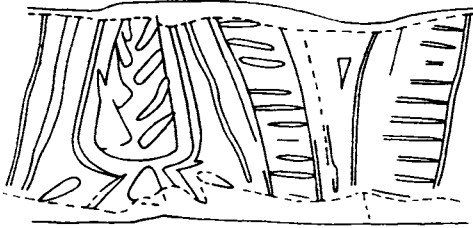
49. HH



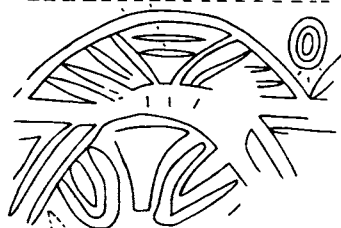
50. JNP



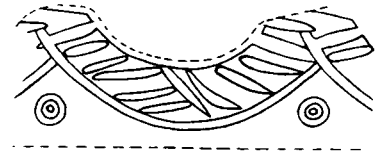
51. Eye Temple



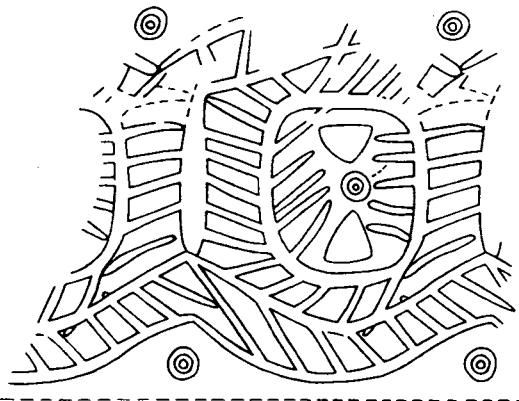
52. Chagar Bazar?



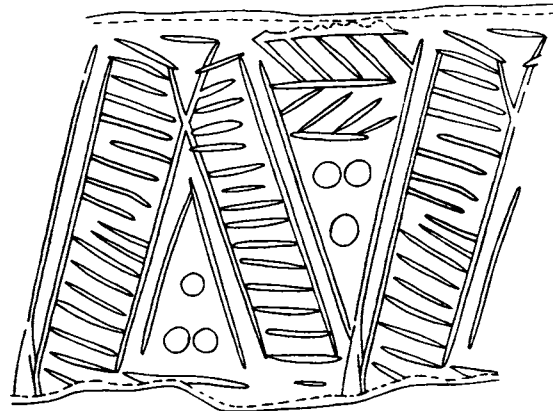
53. FS 3 fill



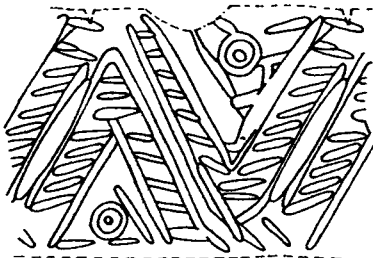
54. SS



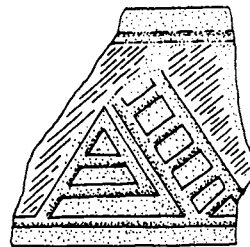
55. WC



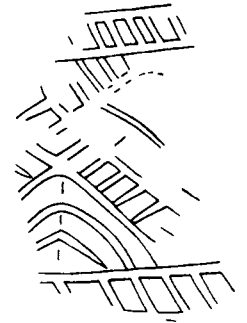
57. Bought Khabur



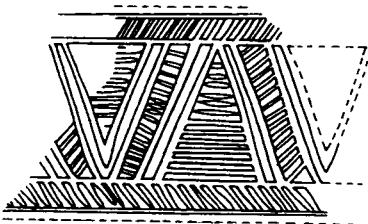
56. Bought Khabur



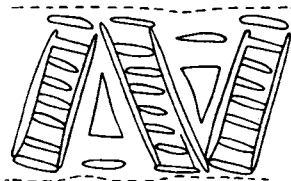
60. ST



61. No provenance



58. ST



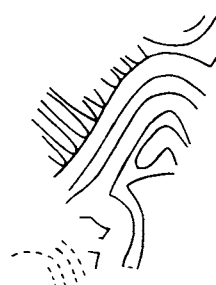
59. JNP



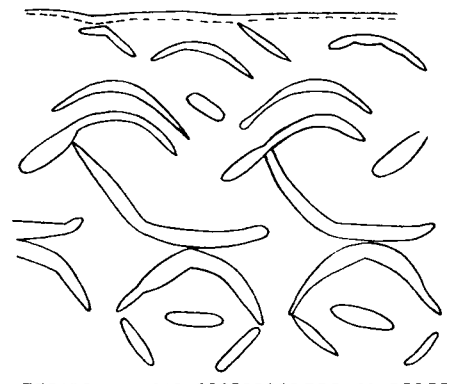
62. JNP



63. TD



64. SS



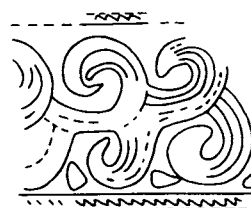
65. Bought Khabur



66. Eye T. area



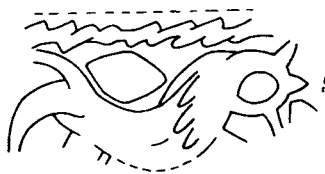
67. JNP



68. JNP



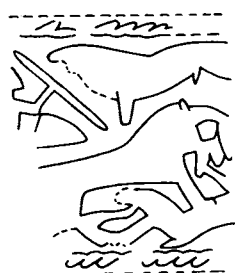
69. JNP



70. TD



71. Eye T. shafts



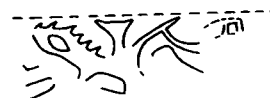
72. No provenance



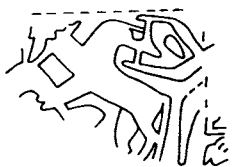
73. JNP



(a) **74. JNP**



(b)



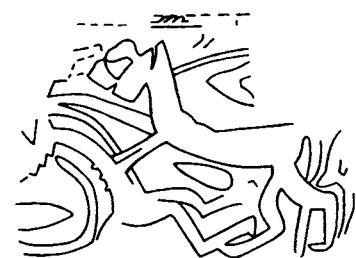
(a) **75. ST**



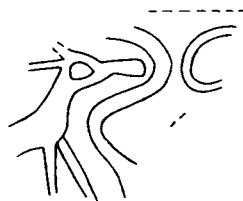
(b)



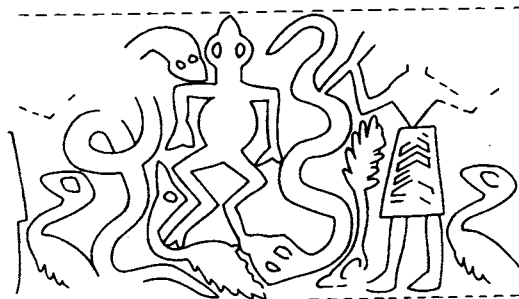
76. TD / TB



77. Brak



78. Chagar Bazar?



79. CH



80. SS Main, floor



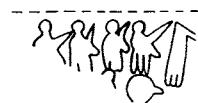
81. SS



82. [SS]



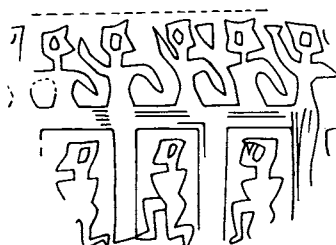
83. JNP



84. ER



85. JNP



86. [FNP]



87. Eye T. area



88. Eye T. shafts



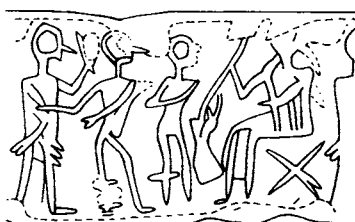
89. JNP



90. ER



91. JNP



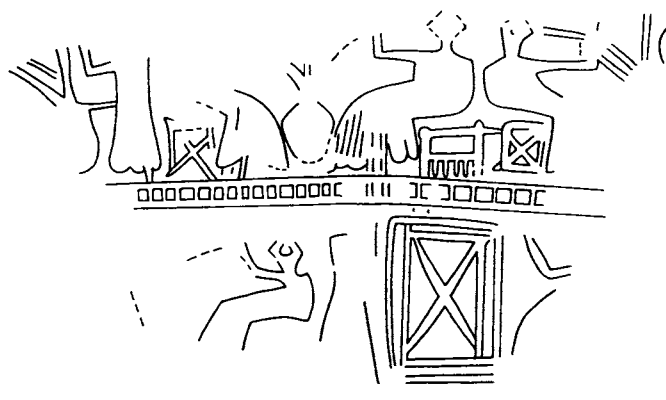
92. Eye T. area / WP?



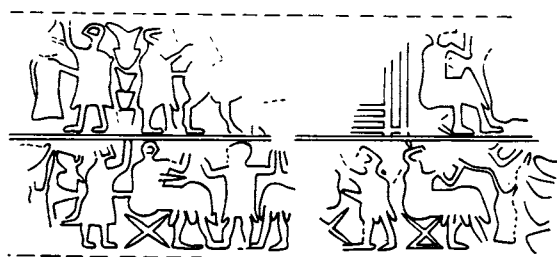
93. SS Main, above floor



94. Eye T. shafts



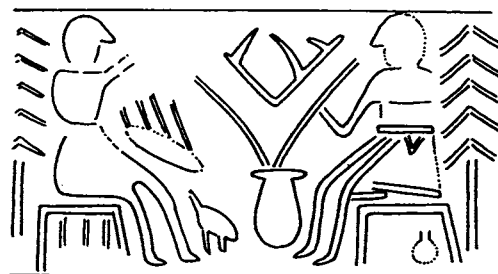
95. CH 6



96. SS



97. JNP



98. CH 3



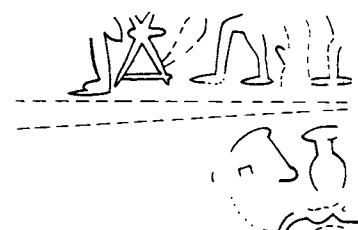
99. FS under level 3



100. LT



101. Chagar Bazar?

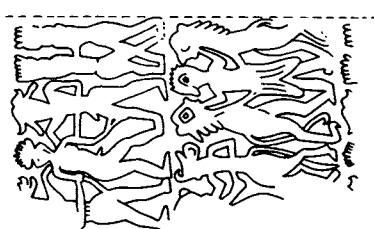


102. SS Main, above floor

XIII



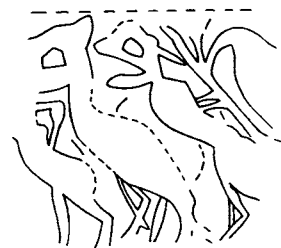
103. JNP



104. CH under level 9



105. ER



106. Eye T. shafts



(a) 107. SS Main, above floor (b)



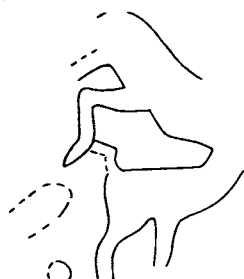
108. JNP



109. SS 2



110. SS



111. SS



112. SS



113. ER 4



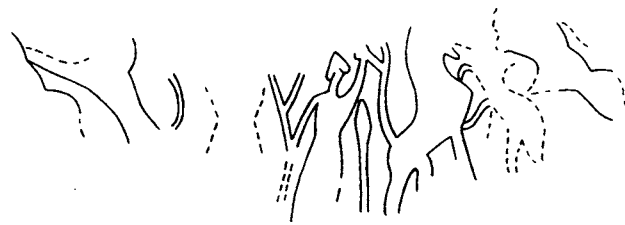
114. CH



115. Eye T. shafts?



116. ER



117. SS Main, fill



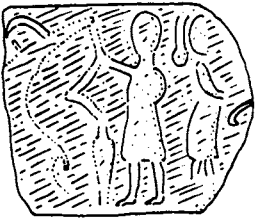
118. JNP



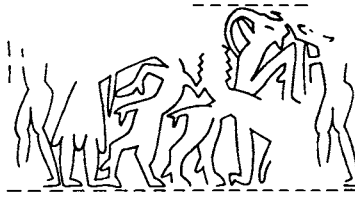
119. JNP



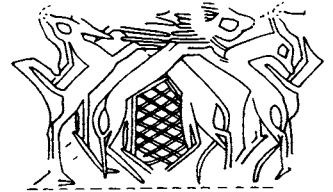
120. JNP



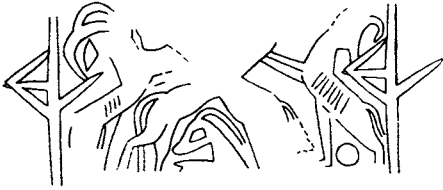
121. ST



122. ER



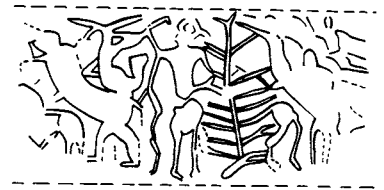
123. ER



124. No provenance



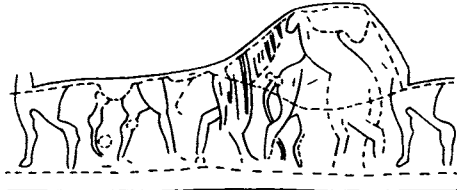
125. FS



126. SS Main, fill



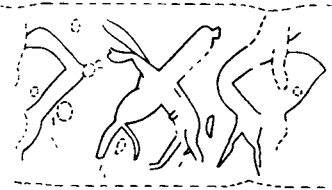
127. [SS]



128. T. Arbit / T. Turzi?



129. [FNP]



130. Eye T. shafts



131. JNP



132. JNP



133. Near FS



134. Chagar Bazar



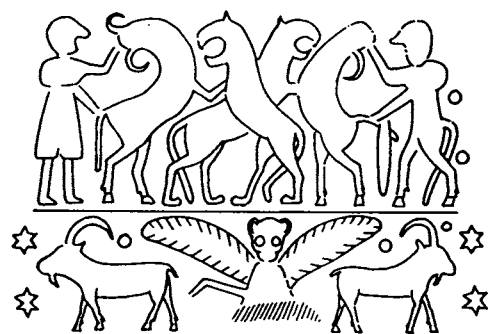
135. JNP



136. CH



137. SS Main, fill



138. CH 6



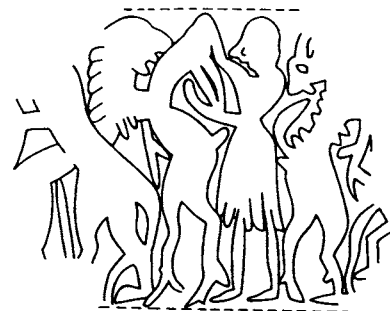
139. FS, below level 5



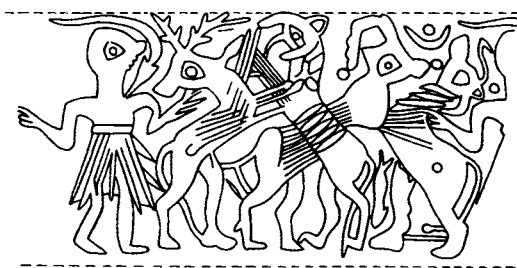
140. Near HH



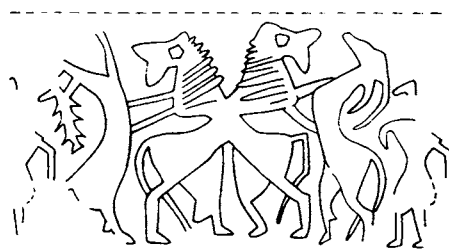
141. ER



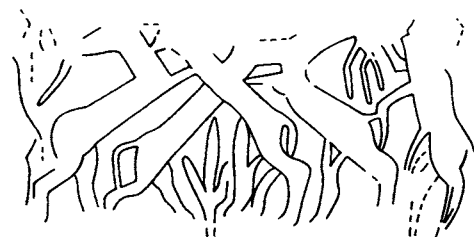
142. ER



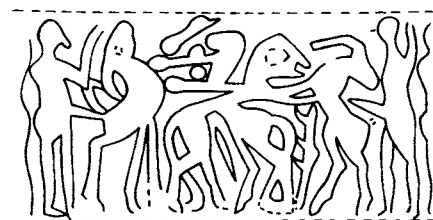
143. SS Main, floor



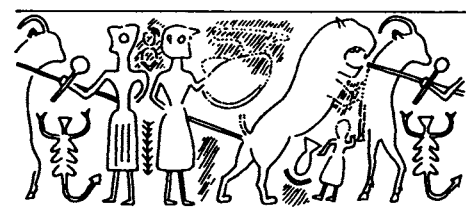
144. ER



145. CH



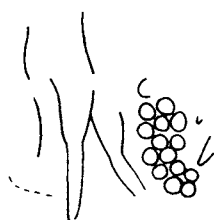
146. Chagar Bazar



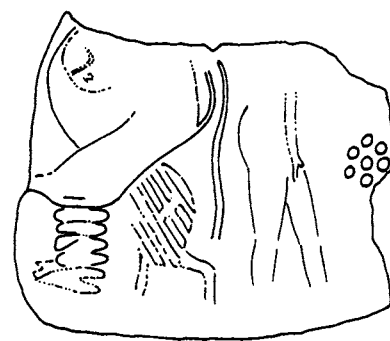
147. ER 4



148. SS



149. Brak



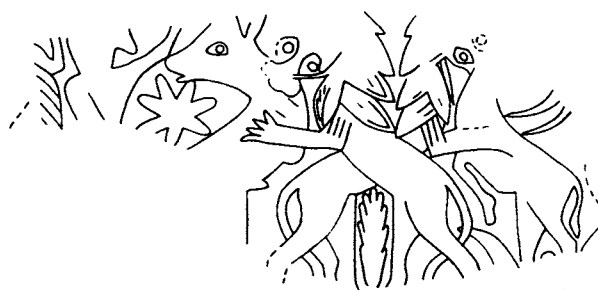
150. ST



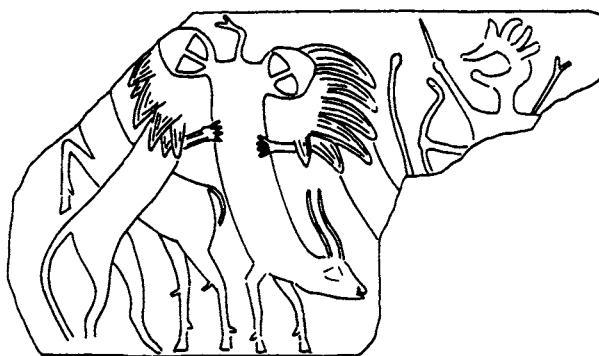
151. Brak



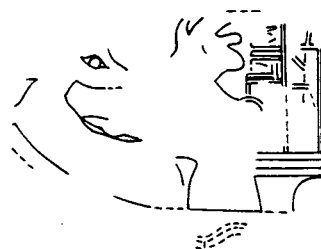
152. CH 6



153. JNP



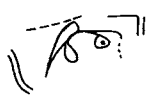
154. ST



155. SS Main, fill



(a) 156. SS Main, above floor



(b)



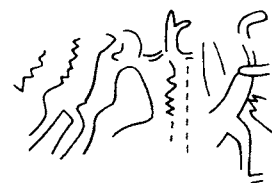
157. JNP



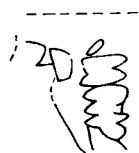
158. JNP



159. SS Main, above floor



160. FS



(a) 161. JNP



(b)



162. FS



163. No provenance



164. FS 3, fill



165. SS Main, floor



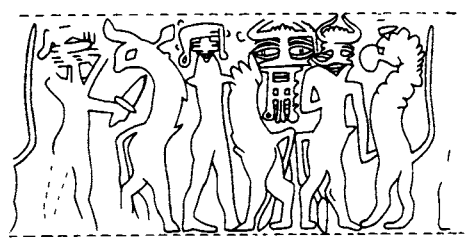
166. SS



(a) 167. No provenance



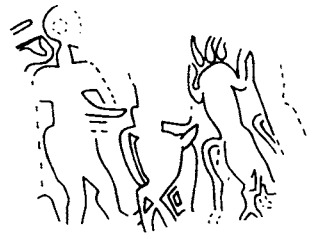
(b)



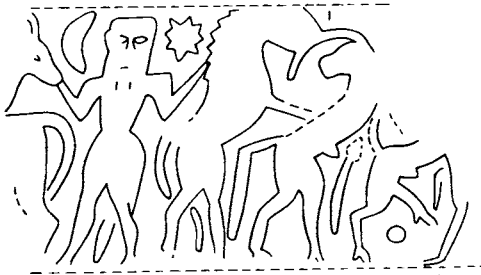
168. SS



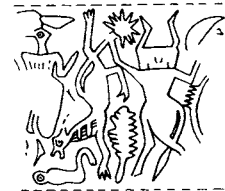
(a) 169. SS 2



(b)



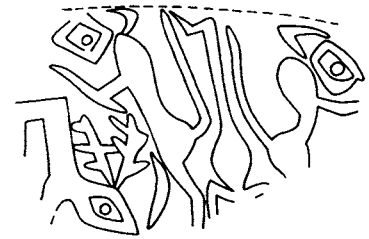
170. FS 5, above floor



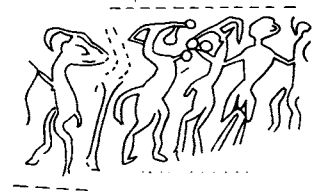
171. Brak



172. FS 5, above floor



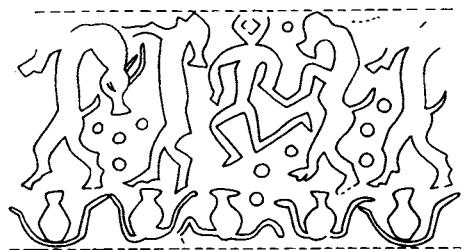
173. SS



174. BT



175. FS 5, above floor



176. JNP (scale 200%)



177. FS 2, fill



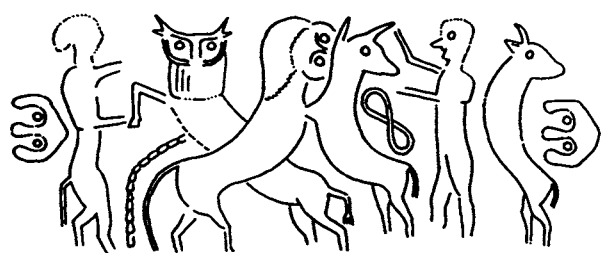
178. JNP



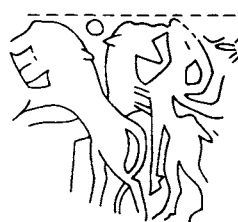
(a) 179. CH 4



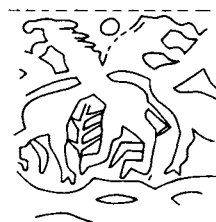
(b)



180. CH 6



181. JNP



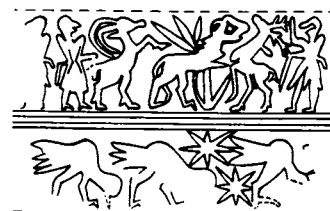
182. JNP



183. FS 5, above floor



184. CH 6



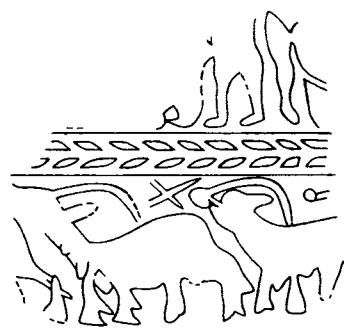
185. SS Main, floor



186. SS Main, fill



187. JNP



188. CH



189. FS 5, above floor



190. SS 2



191. WP?



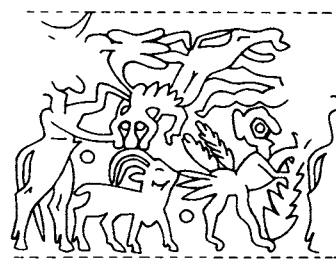
192. SS Main, above floor



193. CH



194. Eye T. shafts



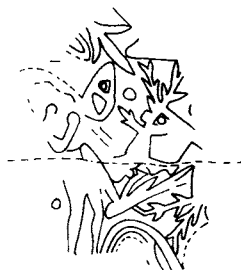
195. CH



196. Eye T. shafts



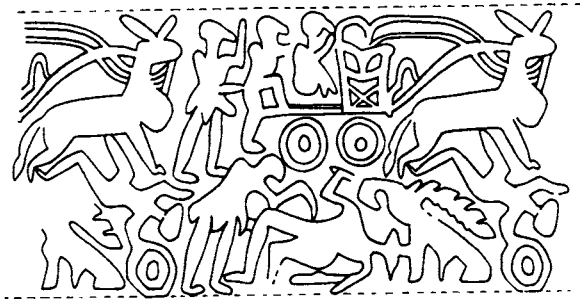
197. CH (scale 200%)



198. ER



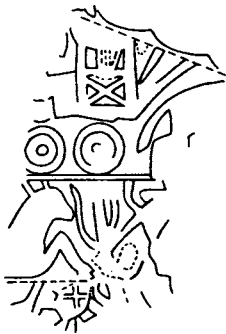
199. Eye T. shafts



200. SS 2



201. SS Main, floor



202. SS Main, fill



203. SS 2



204. ER



(a) 205. [FNP]



(b)



206. JNP



(a) 207. SS Main, floor



(b)



(c)



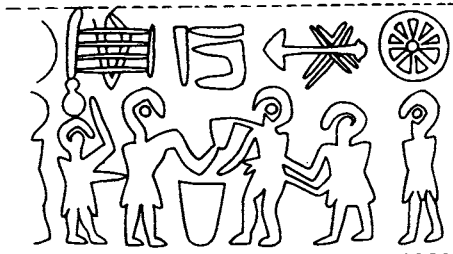
208. Near TC



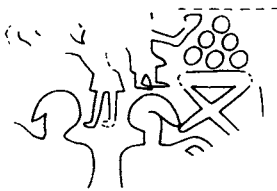
209. SS Main, floor



210. SS



211. SS Main, floor



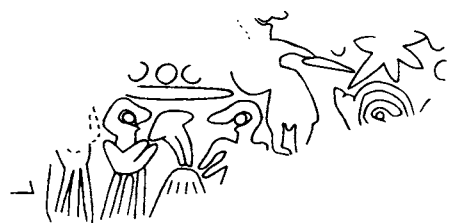
(a) 212. SS Main, floor



(b)



213. FS 3, floor



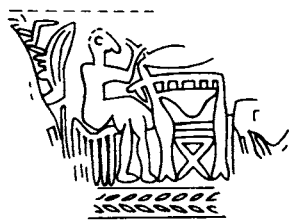
214. SS Main, fill



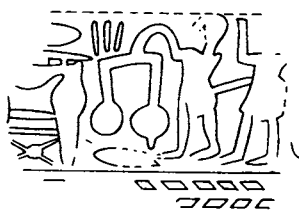
215. SS 2



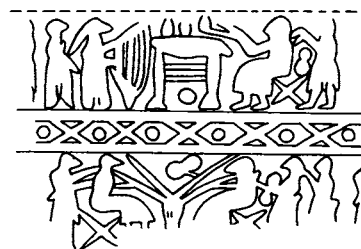
216. ER



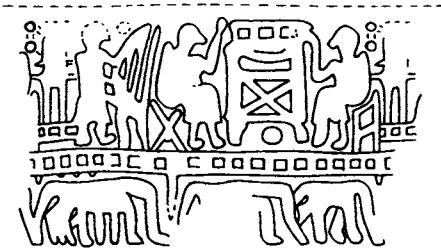
217. [FNP]



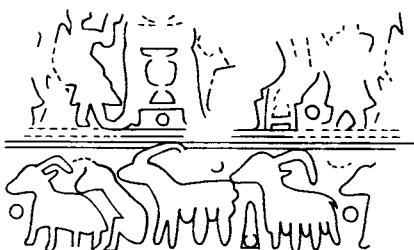
218. CH



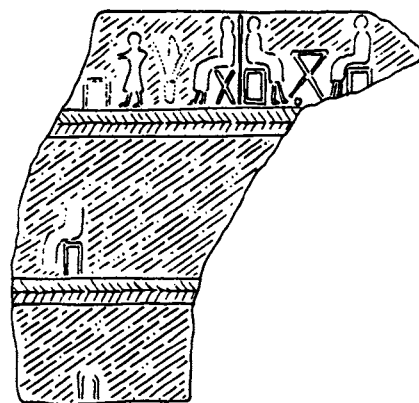
219. Chagar Bazar



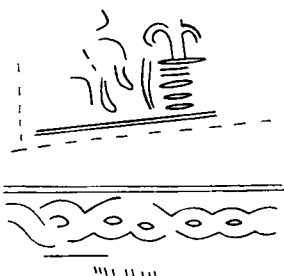
220. SS 2



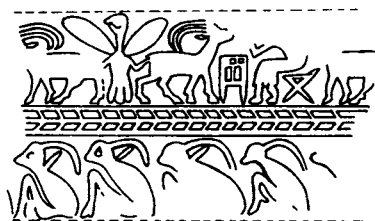
221. FS 5, fill



222. CH 5



223. SS Main, fill



224. ER



(a) 225. Eye T. shafts



(b)



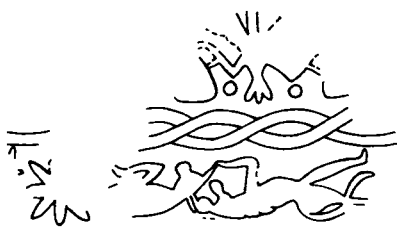
226. SS Main, fill



227. No provenance



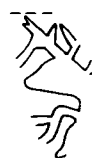
228. SS



229. ER



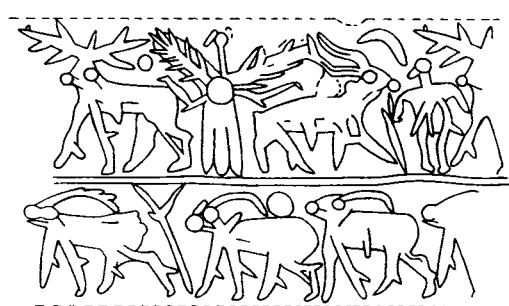
230. JNP



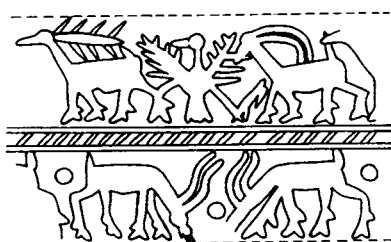
(a) 231. SS, under Main floor



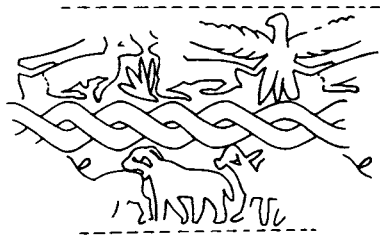
(b)



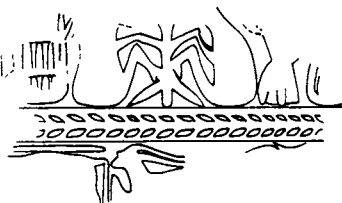
232. JNP



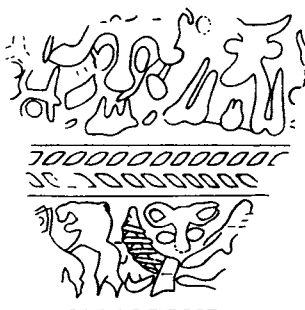
233. SS Main, floor



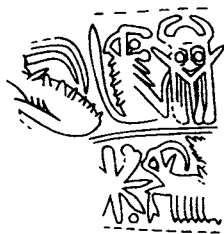
234. SS Main, fill



235. Near HH



236. CH



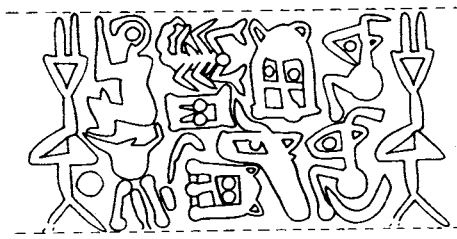
237. ER



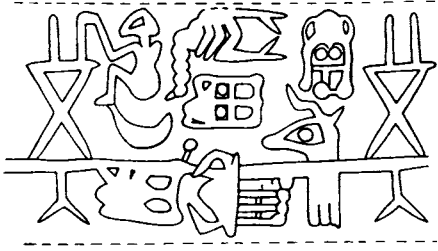
238. JNP



239. CH



240. SS Main, floor



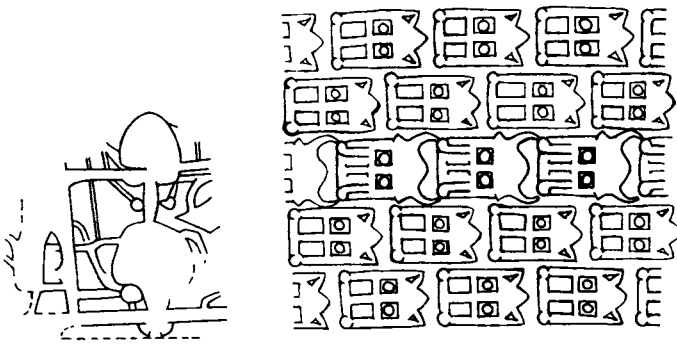
241. SS Main, above floor



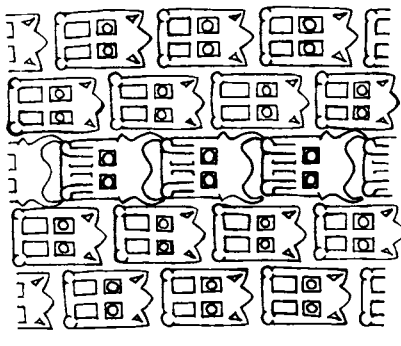
242. SS Main, floor



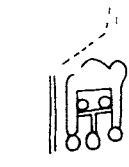
243. SS Main, floor



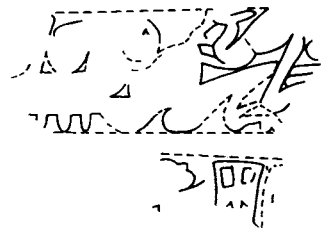
244. Eye T. shafts



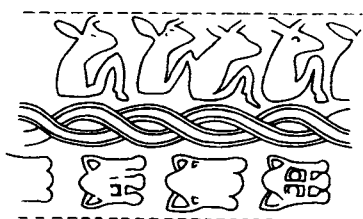
245. JNP / SS Main, floor



246. SS Main, fill



247. JNP



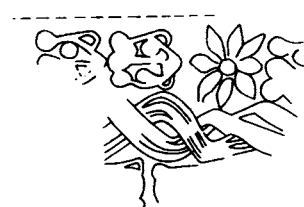
248. ER



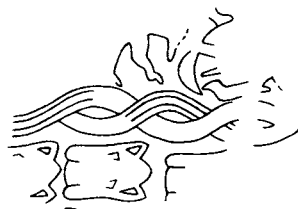
249. SS Main, above floor



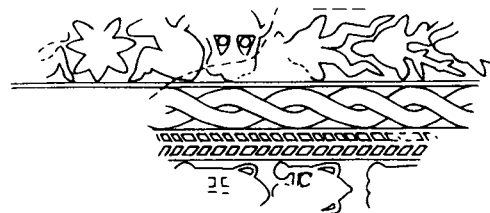
250. JNP



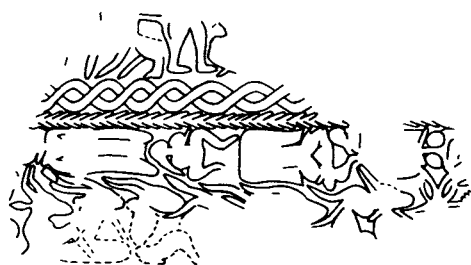
251. SS 2



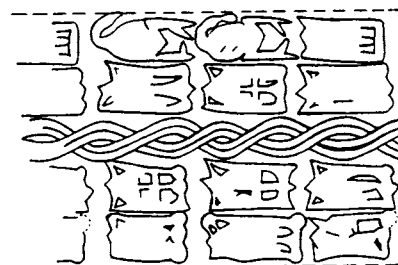
252. JNP



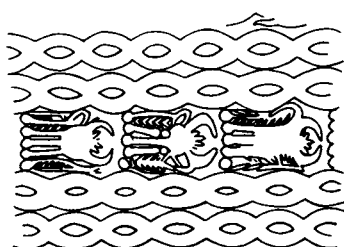
253. FS 5, above floor



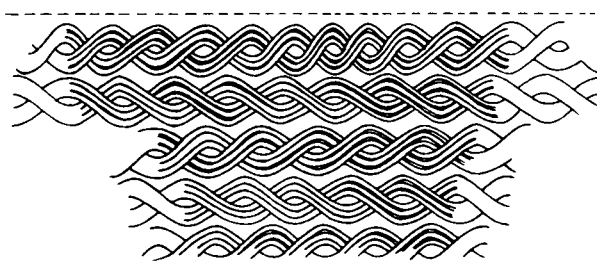
254. ER



255. SS Main, floor



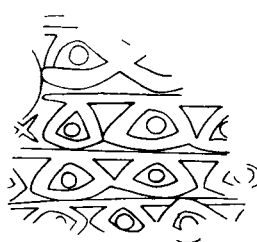
256. FS 5, above floor



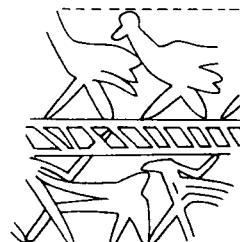
257. FS 5, above floor



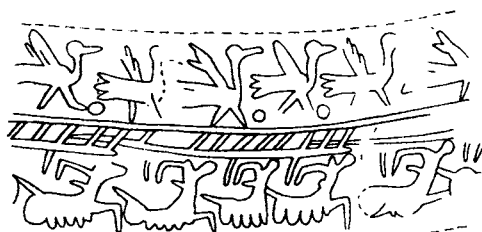
258. SS Main, floor



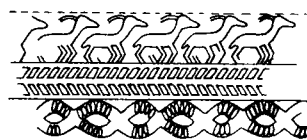
259. SS Main, above floor



260. JNP



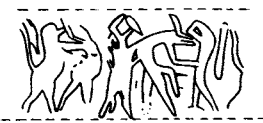
261. SS Main, floor



262. FS 2



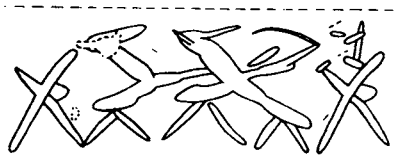
263. ER 2



264. SS



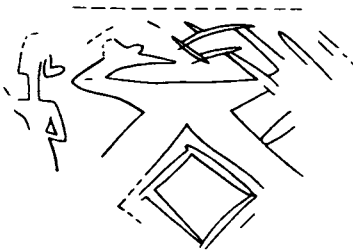
265. JNP



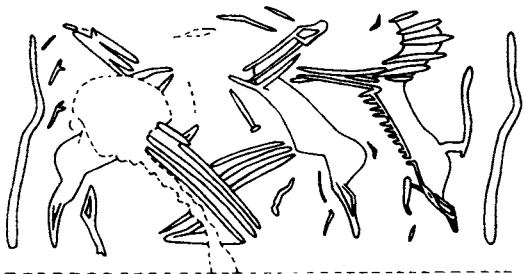
266. JNP



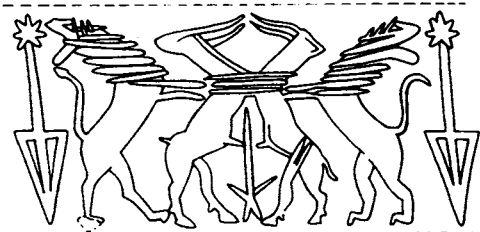
267. JNP



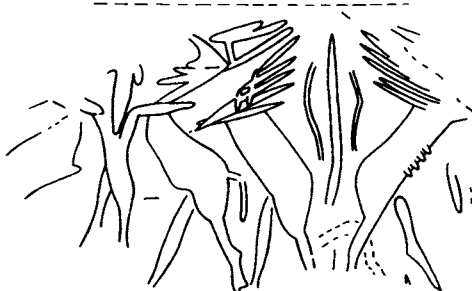
268. JNP



269. FS



270. JNP



271. ER



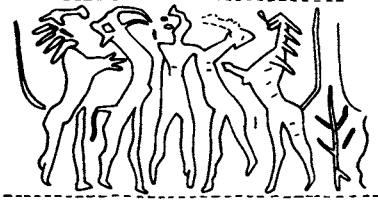
272. [FNP]



273. Brak



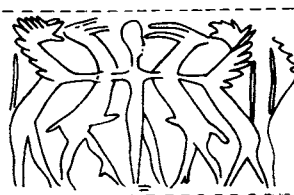
274. SS Main, floor



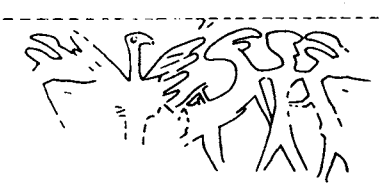
275. Khabur



276. FS



277. ER / FS?



278. FS



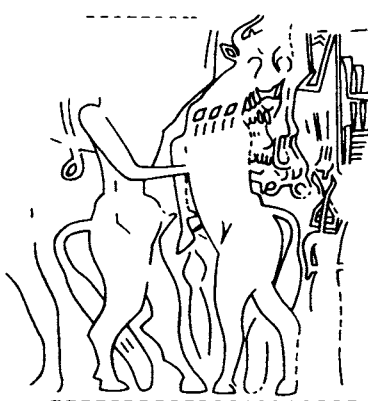
279. JNP



280. CH / [FNP]



281. JNP



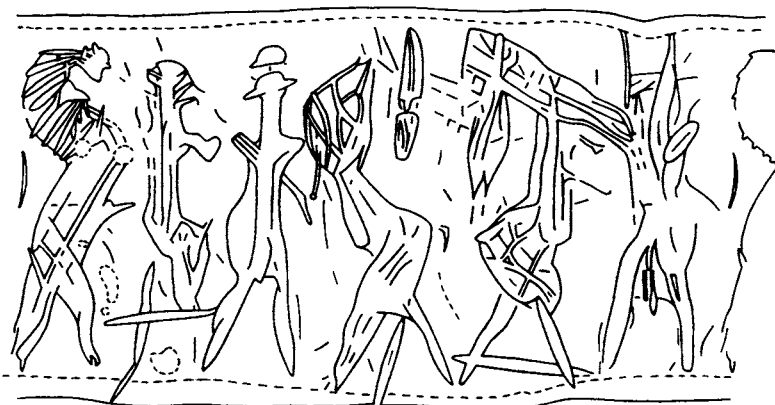
282. SS



(a) 283. Brak? (b)



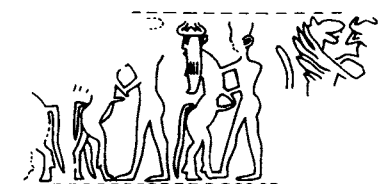
284. JNP



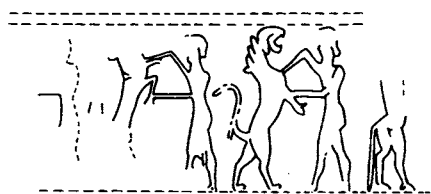
285. ER



286. WP (a) (b)



287. JNP



288. ER



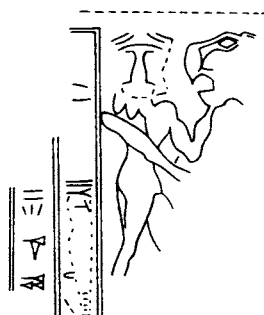
289. JNP



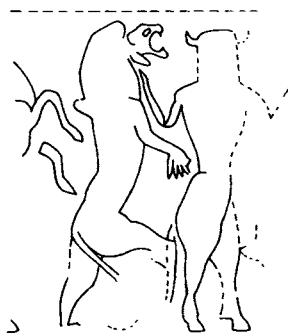
290. WP



291. WP



292. JNP



293. JNP



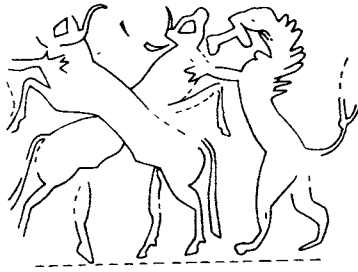
294. No provenance



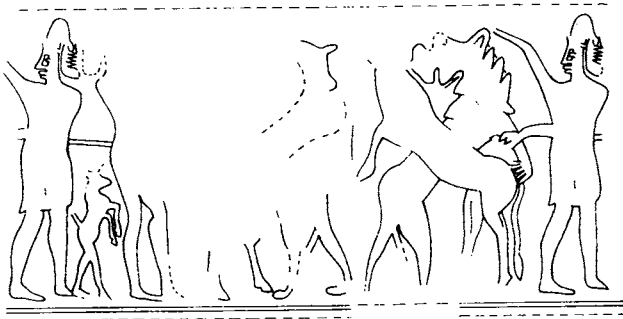
295. FS



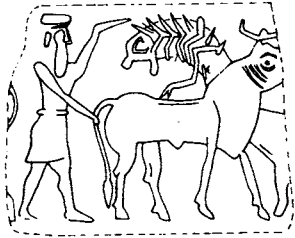
296. JNP



297. JNP



298. JNP / CH



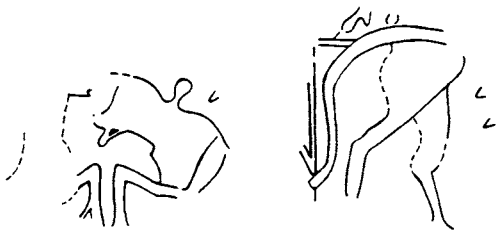
299. SS



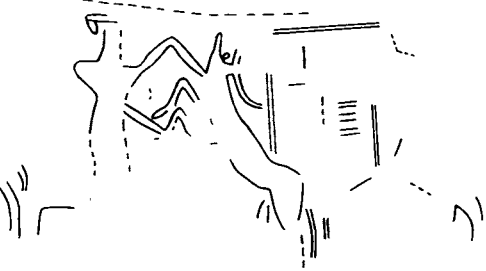
300. SS Main, above floor



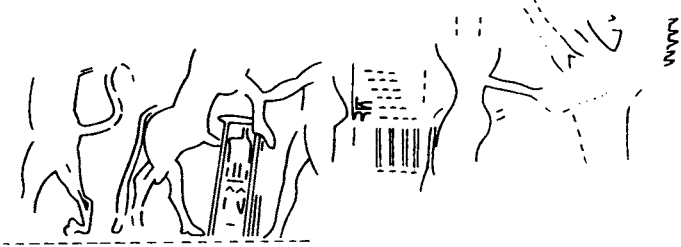
301. SS Main, above floor



(a) 302. SS Main, above floor (b)



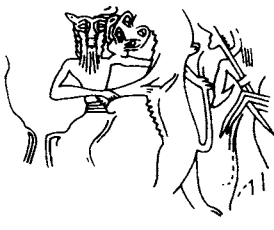
303. ER



304. No provenance



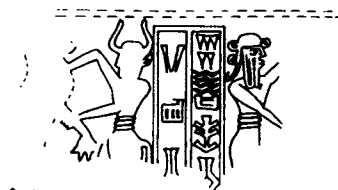
305. JNP



306. JNP



307. FS



308. ER



309. JNP



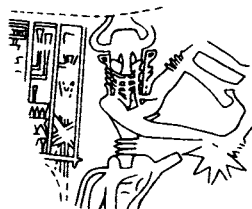
310. ER



311. JNP



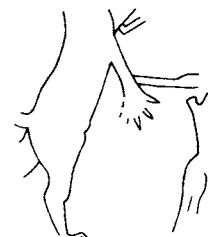
312. JNP



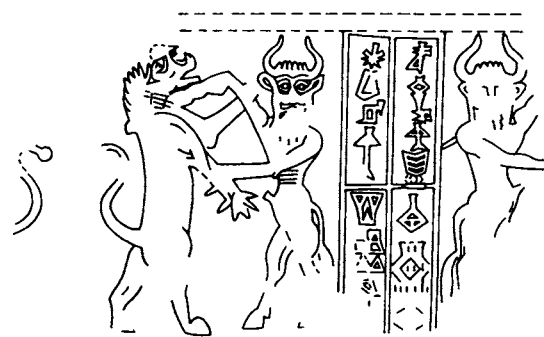
313. No provenance



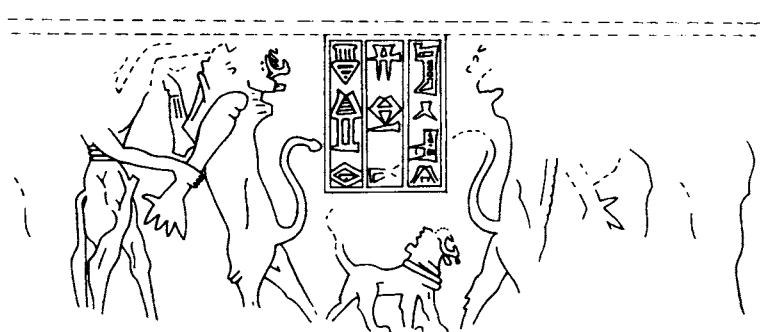
314. TC



315. WP



316. JNP



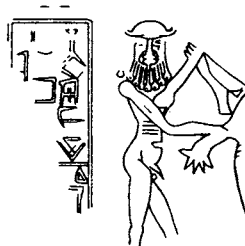
317. FS 4



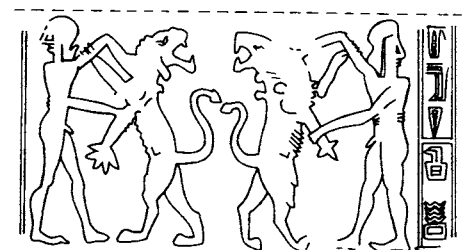
318. FS



319. WP / JNP



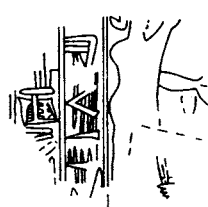
320. ER



321. JNP



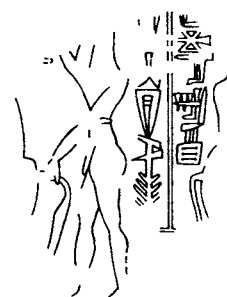
322. FNP



323. ER



324. JNP



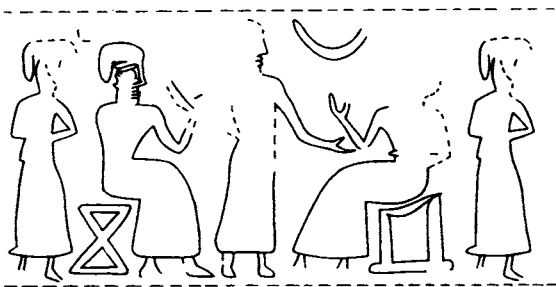
325. WP



326. JNP



327. JNP



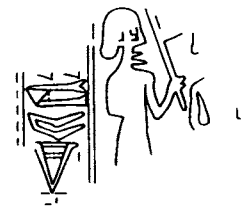
328. JNP



329. JNP



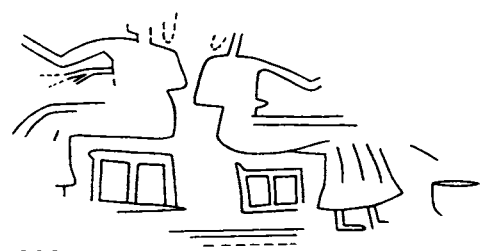
330. JNP



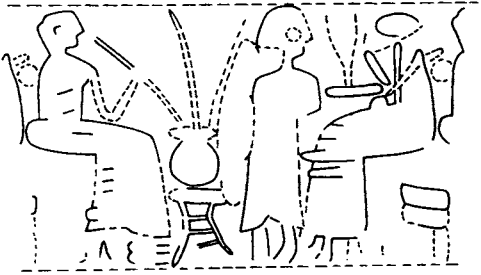
331. JNP



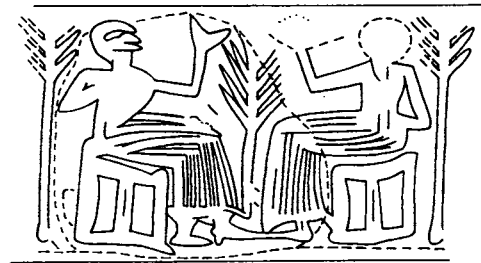
332. No provenance



333. JNP



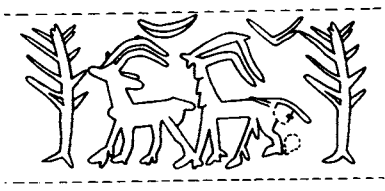
334. JNP



335. WP / JNP



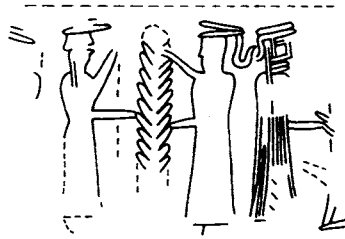
336. ER



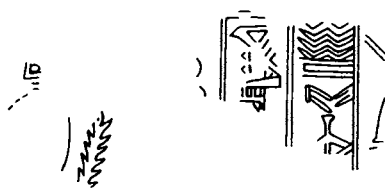
337. Brak?



338. JNP / Eye T. area



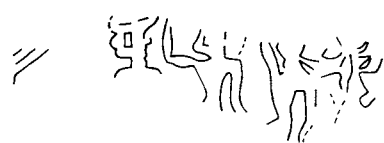
339. Brak?



(a) 340. JNP (b)



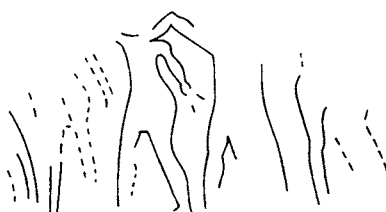
341. FNP



342. TD



343. Chagar Bazar



344. SS



345. SS Main, above floor



346. SS Main, floor



347. SS



348. FS



349. JNP



350. CH



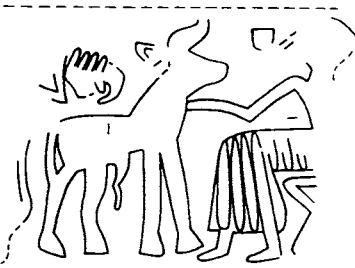
351. [JNP]



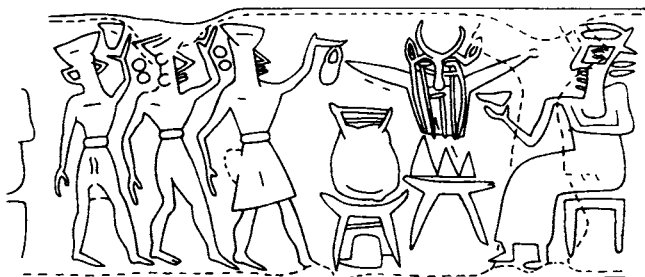
352. JNP



353. JNP



354. FS 2/3



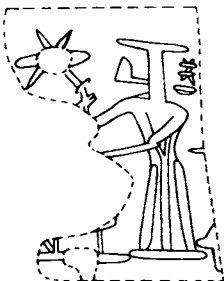
355. JNP/CH



356. JNP



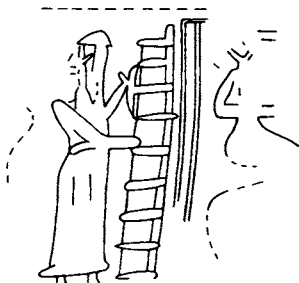
357. CH



358. [FNP]



359. SS



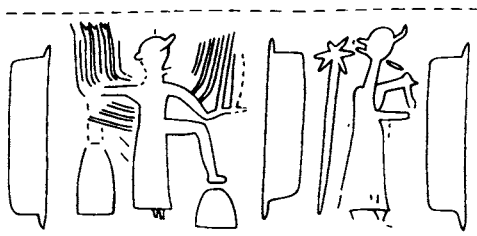
360. JNP



361. CH



362. SS



363. SS



364. JNP



365. Chagar Bazar



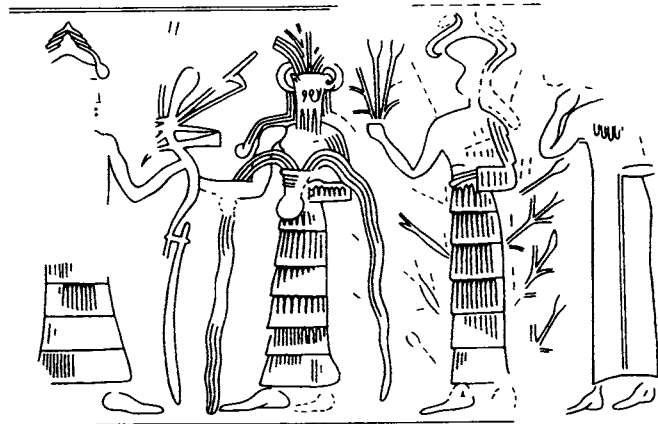
366. [JNP]



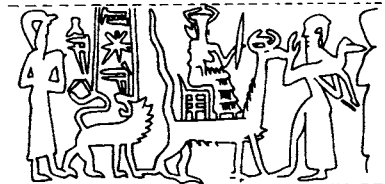
367. ER



368. JNP



369. ER



370. JNP



371. JNP



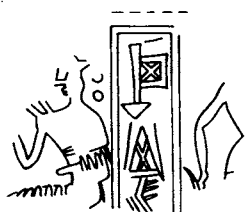
372. JNP



373. ER



374. JNP



375. JNP



376. FS 4?



377. FS 2



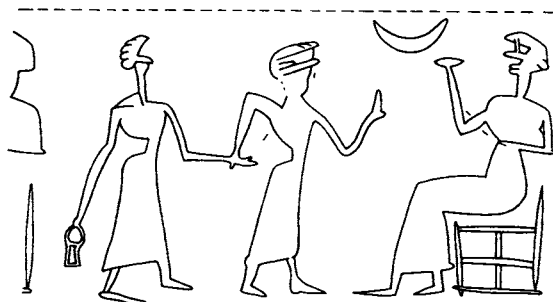
378. JNP



379. Brak?



380. JNP



381. Brak?



382. WP



383. DH



384. Near FS



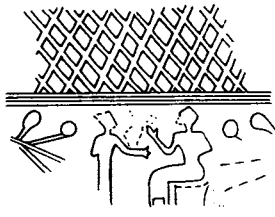
385. CH



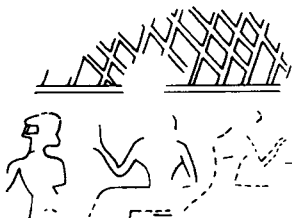
386. Brak / Chagar Bazar?



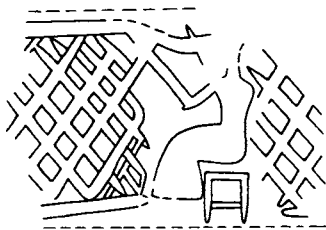
387. JNP



388. JNP



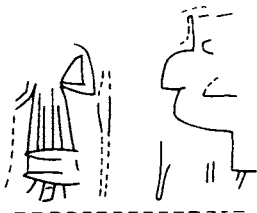
389. JNP



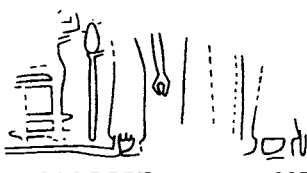
390. JNP



391. CH



392. No provenance



393. ER



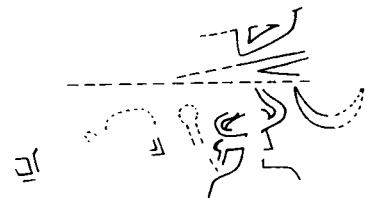
(a) 394. ER



(b)



395. JNP



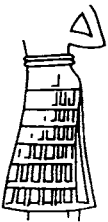
396. ER



397. WP



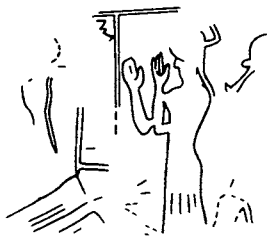
398. ER



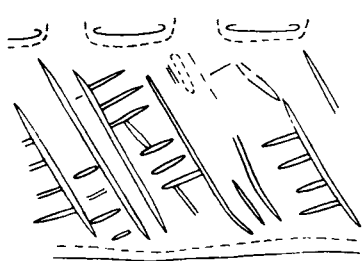
399. FNP



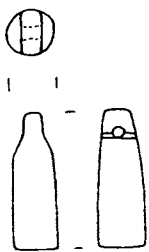
400. CH



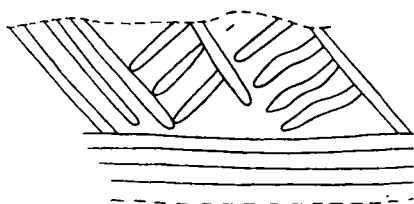
401. JNP



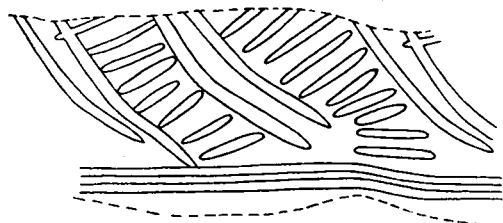
(a) 402. CH



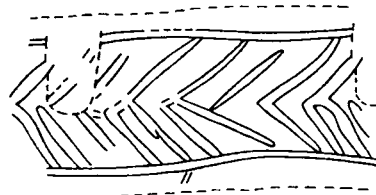
(b) (scale 70%)



403. Tell Kashkashok



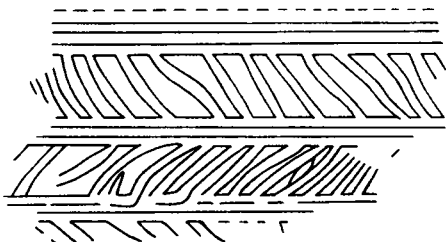
404. Tell Kashkashok



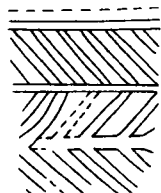
405. Tell Abu Hujeira



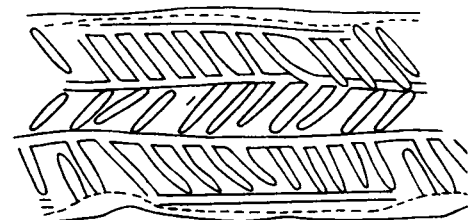
406. TW



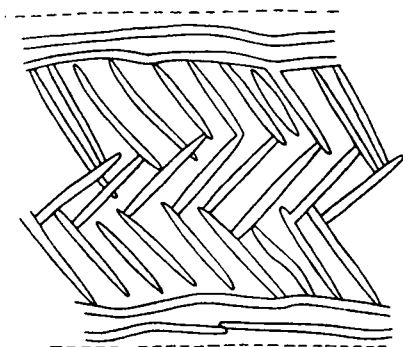
407. DH



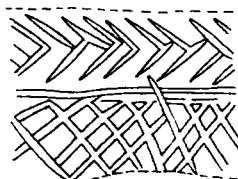
408. JNP



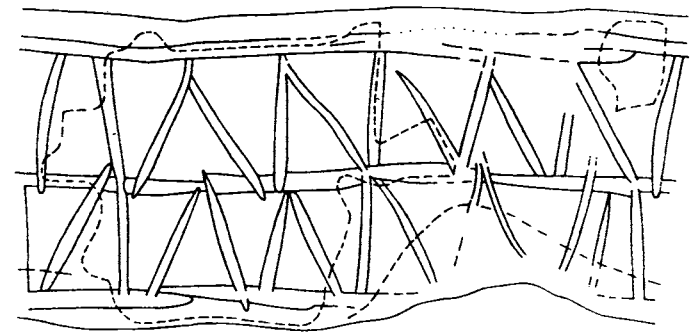
409. JNP



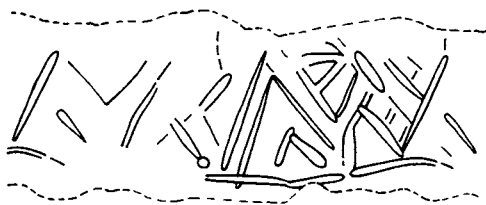
410. Tell Abu Hujeira



411. Chagar Bazar



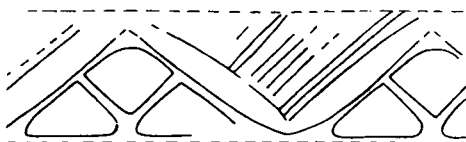
412. CH



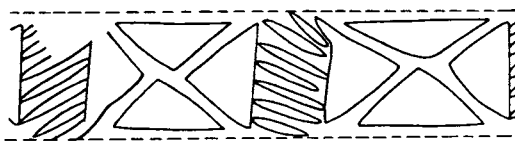
413. SS, below Main level



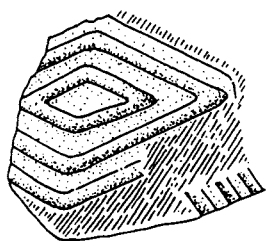
414. Eye T. area



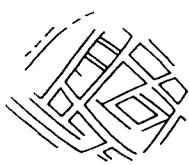
415. JNP



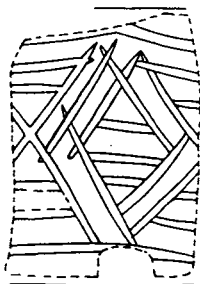
416. Brak



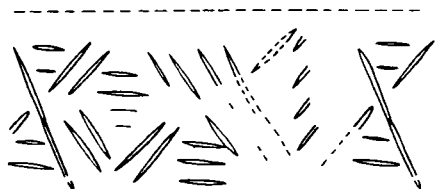
417. TW



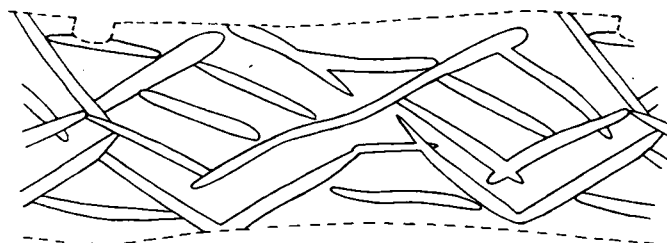
418. No provenance



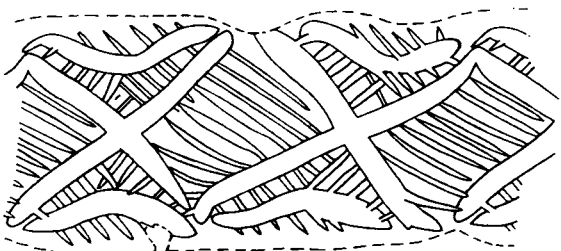
419. Chagar Bazar?



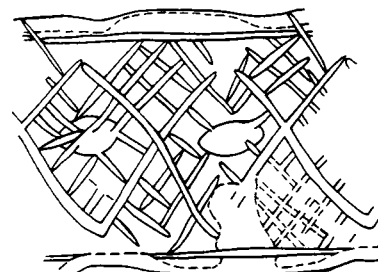
420. [SS]



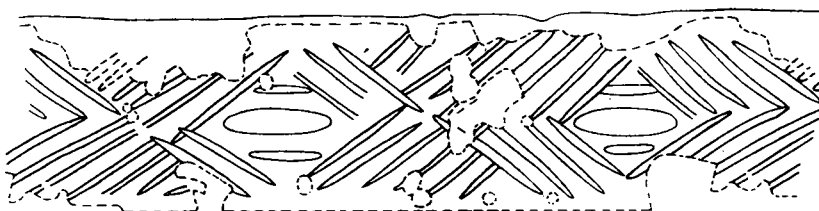
421. Brak?



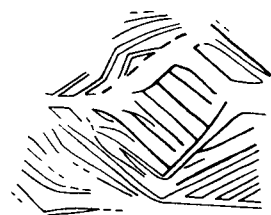
422. Eye T. shafts



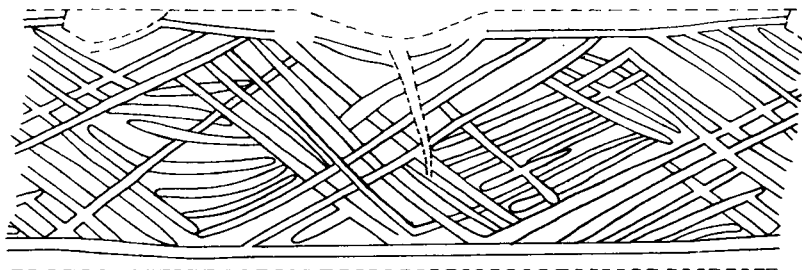
423. SS



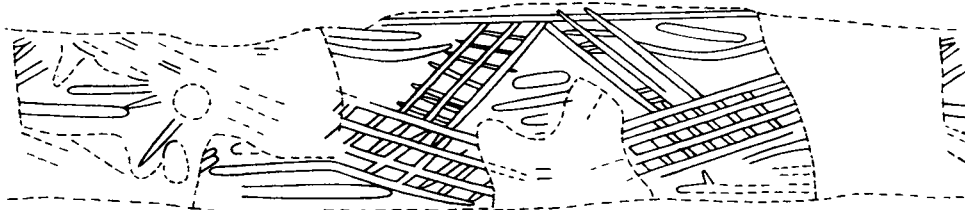
424. JNP



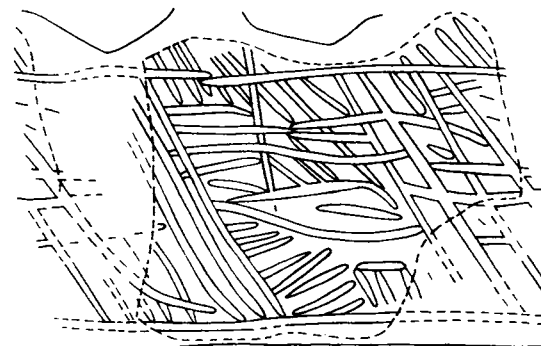
425. Eye T. shafts



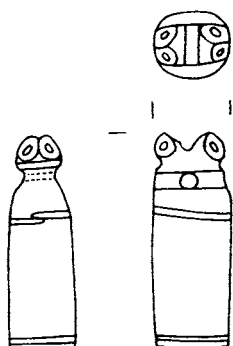
426. SS Main, floor



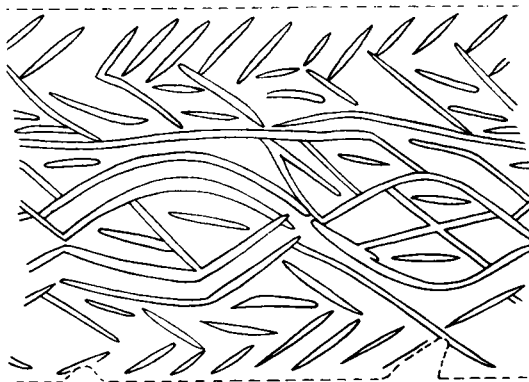
427. JNP



(a) 428. Chagar Bazar



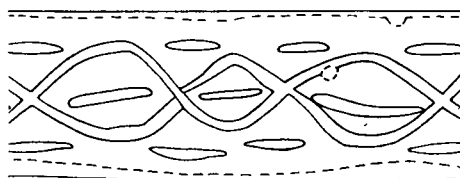
(b) (scale 70%)



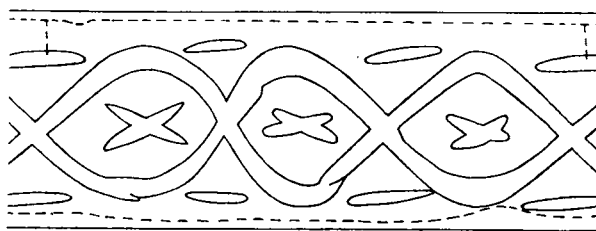
429. Tell Gernayir



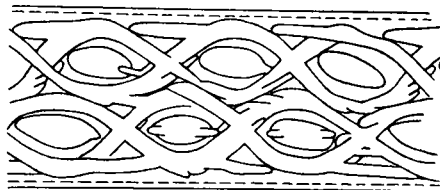
430. JNP



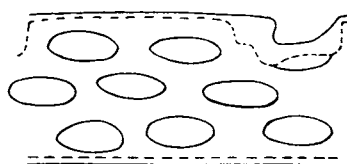
431. Eye T. area



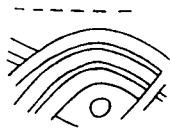
432. Eye T. area



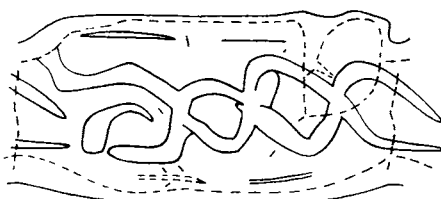
433. Eye T. area



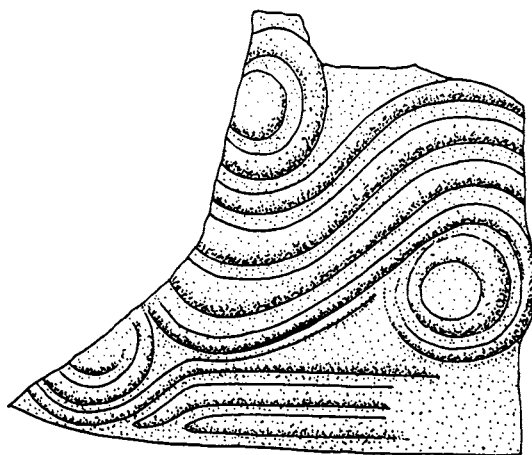
434. Eye T. shafts



436. Eye T. area



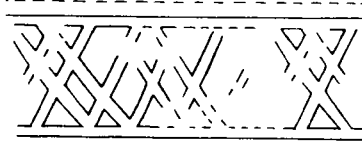
437. Eye T. area



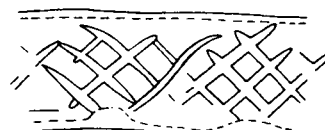
435. ST



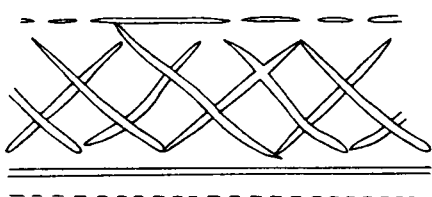
438. Brak / Chagar Bazar?



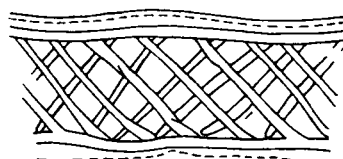
439. Eye T. area



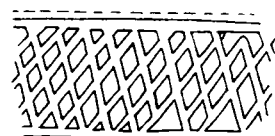
440. CH



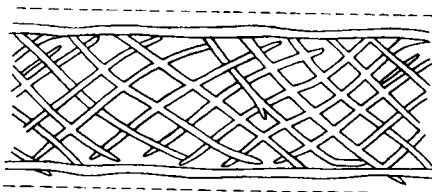
441. SS Main, floor



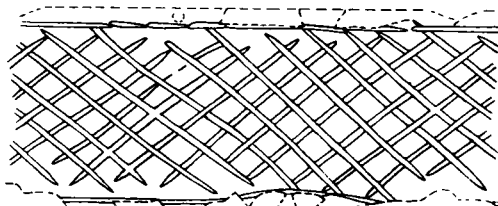
442. Eye T. shafts



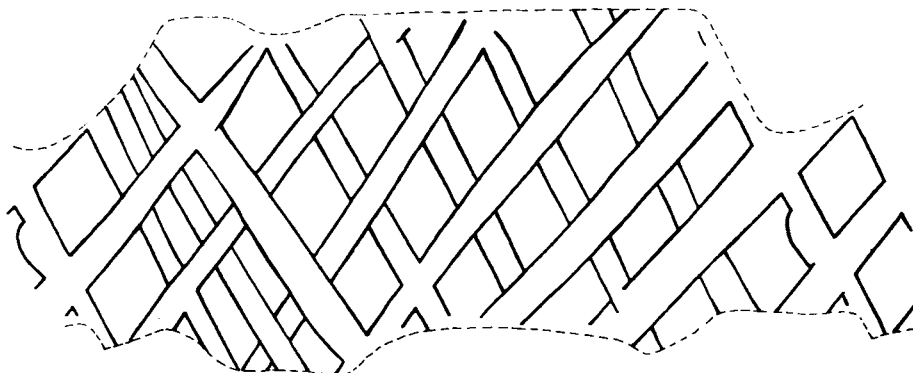
443. FS 2



444. Brak?



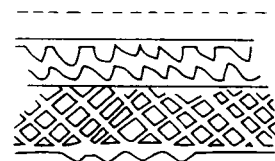
445. No provenance



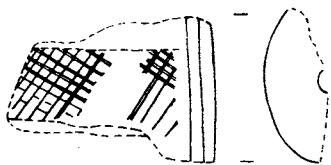
447. WP



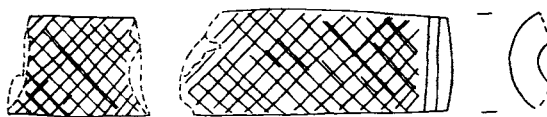
446. No provenance



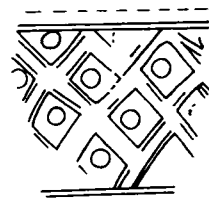
448. SS



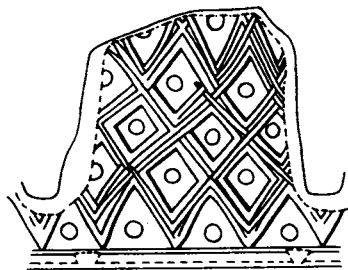
449. SS Main, fill (scale 70%)



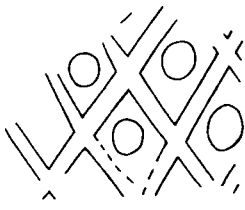
450. SS Main, fill (scale 70%)



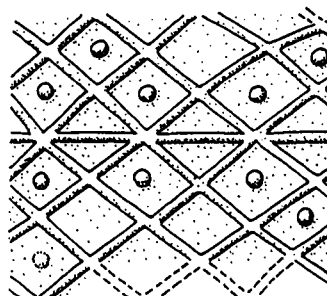
451. ER



452. Brak



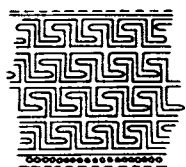
453. JNP?



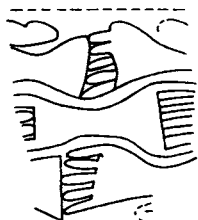
454. ER 4



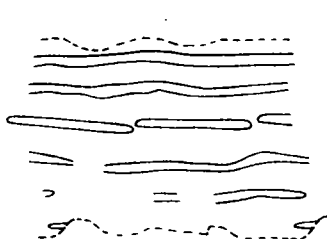
455. Near HH



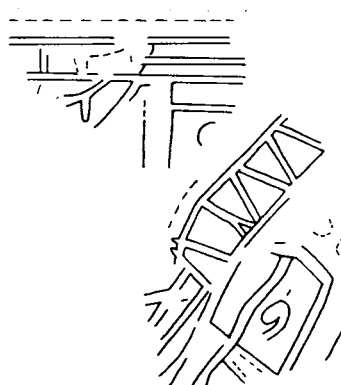
456. ER



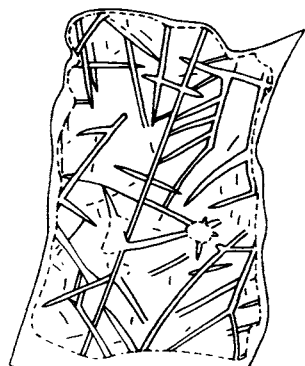
457. Eye T. shafts



458. No provenance



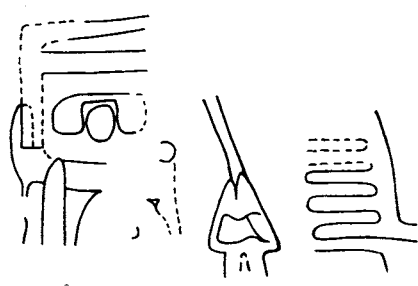
459. No provenance



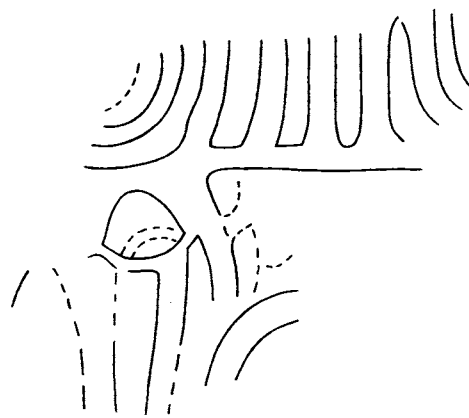
460. JNP



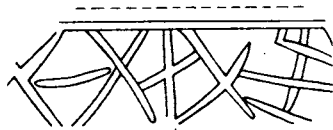
461. SS



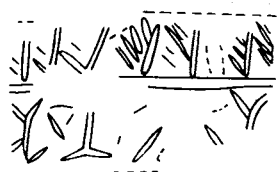
462. SS Main, fill



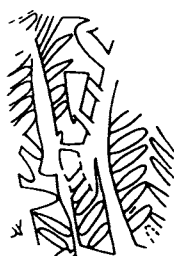
463. SS



464. FS



465. WP



466. ER



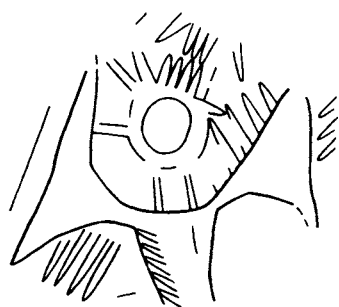
467. SS Main, floor



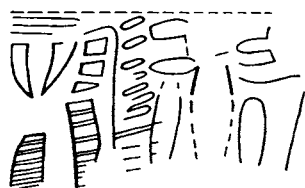
468. SS



469. CH



470. Near HH



471. CH 5



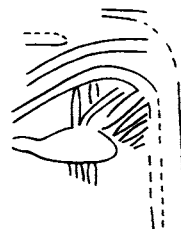
472. Brak



473. JNP



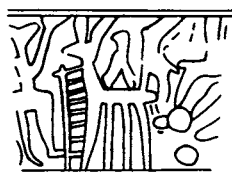
474. Brak



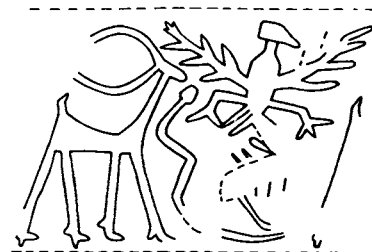
475. SS 2



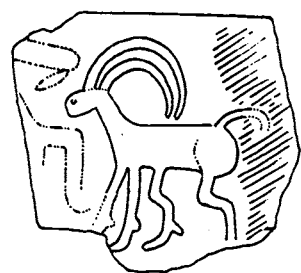
476. ER



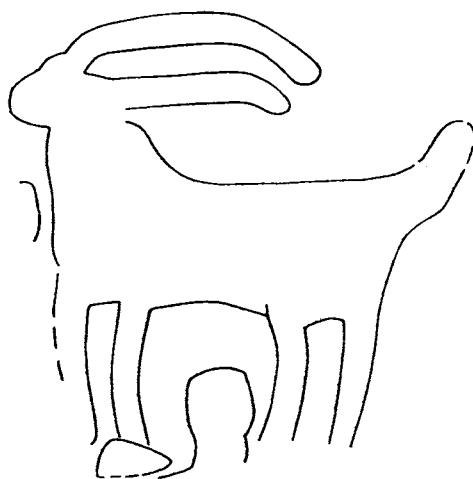
477. Chagar Bazar



478. CH, below level 6



479. TW



480. ST



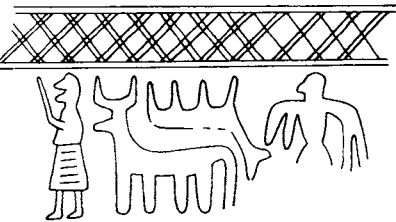
481. Near HH



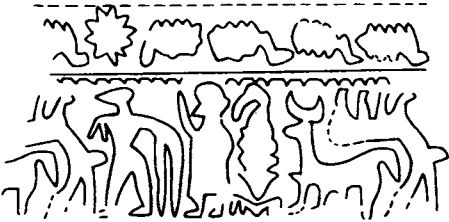
482. Tell Kashkashok



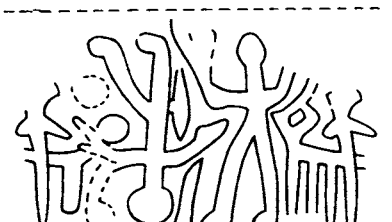
483. Tell Arbit



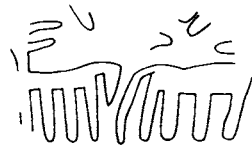
484. CH 6



485. Eye T. shafts



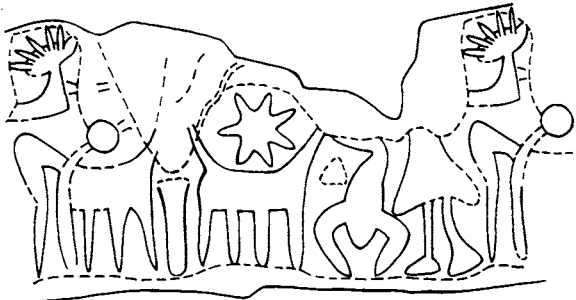
486. JNP



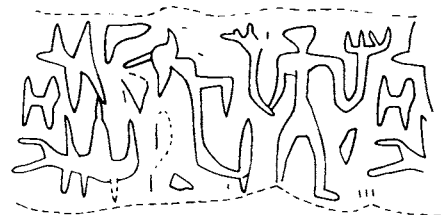
487. JNP



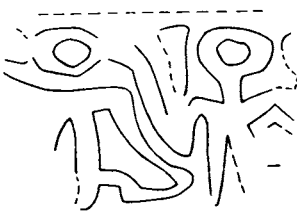
488. ST



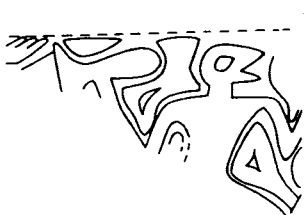
489. SS Main, floor



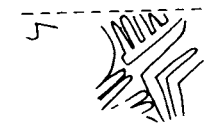
490. Brak?



491. Tell Germayir



492. Chagar Bazar



(a) 493. ST



(b)



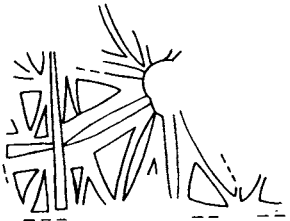
(a) 494. SS



(b)



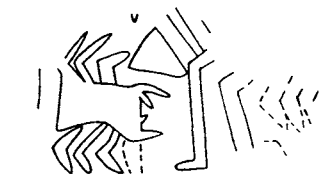
495. CH



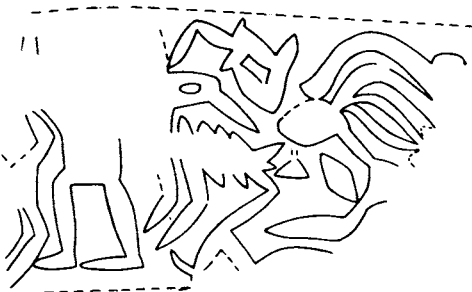
496. ST



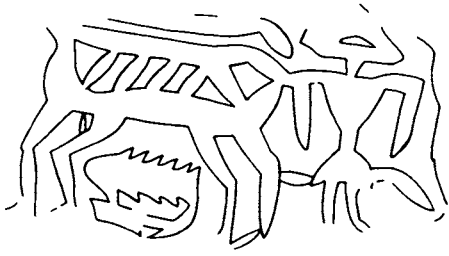
497. JNP



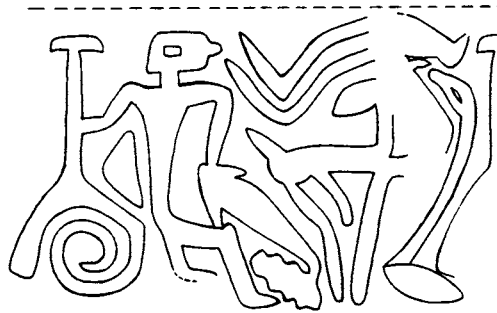
498. FS



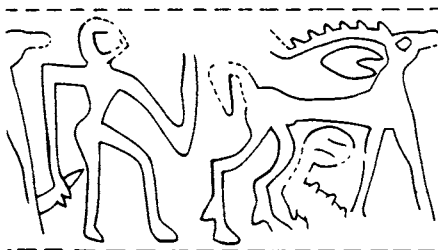
499. Brak?



500. Tell Mozan



501. Brak



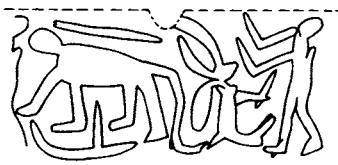
502. SS



503. FS 2/3



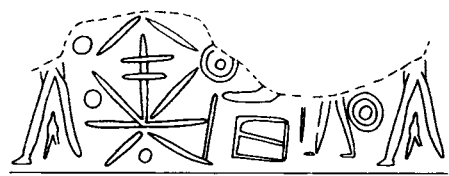
506. SS Main, fill



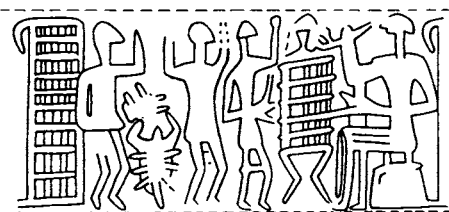
504. Brak?



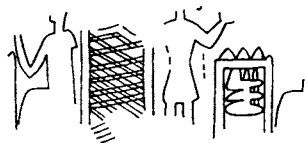
505. SS Main, floor



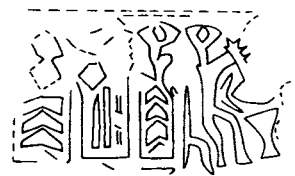
507. JNP



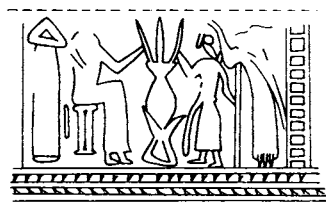
508. ER



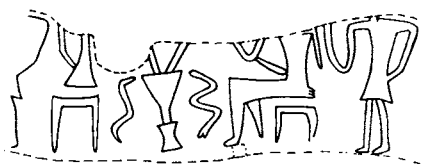
509. TD



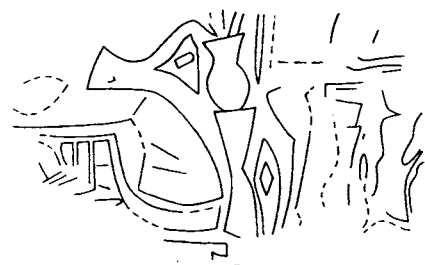
510. ER



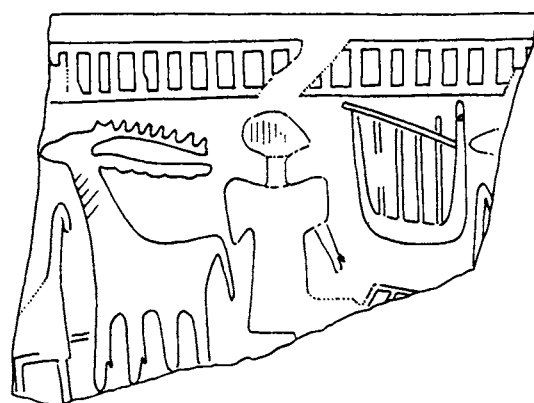
511. ER



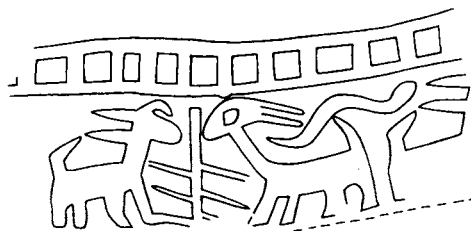
512. JNP



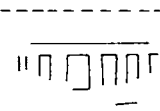
513. JNP



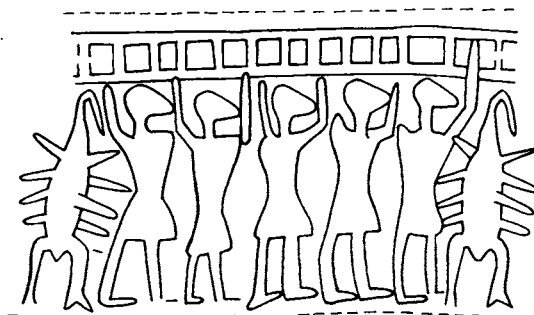
514. ST



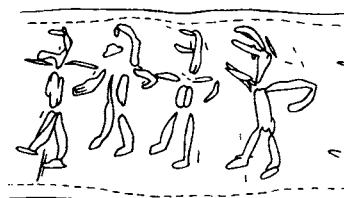
515. Tell Abu Hujeira



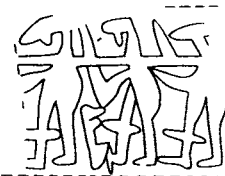
516. ST



517. CH 6



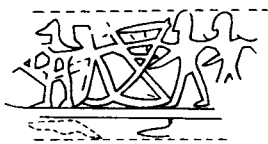
518. Chagar Bazar



519. Brak



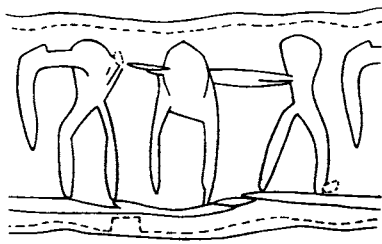
520. No provenance



521. JNP



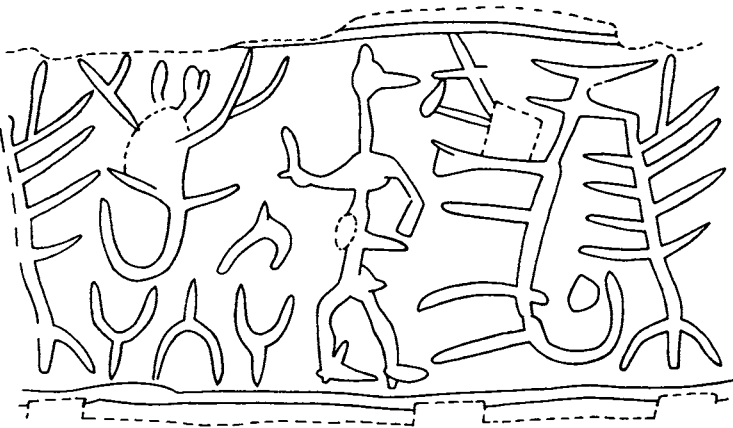
522. JNP



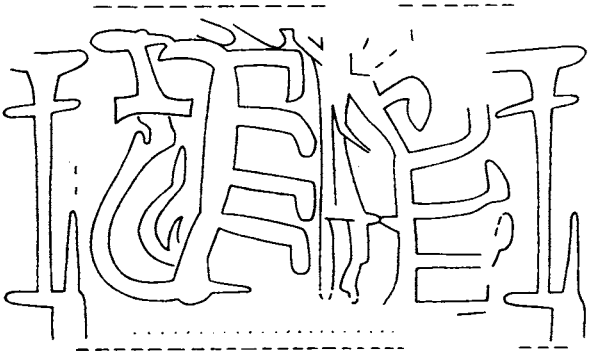
523. TD



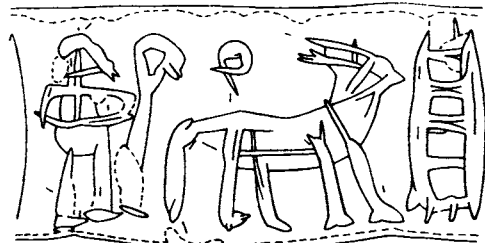
524. No provenance



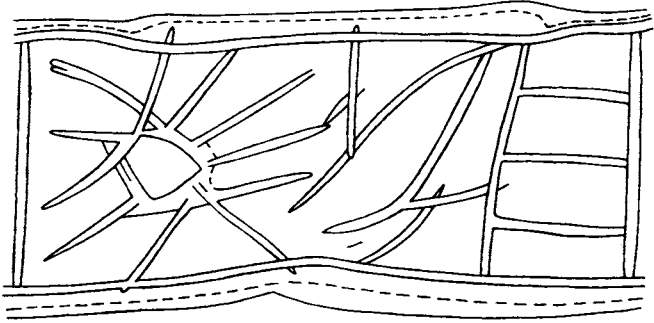
525. Tell Abu Hujeira



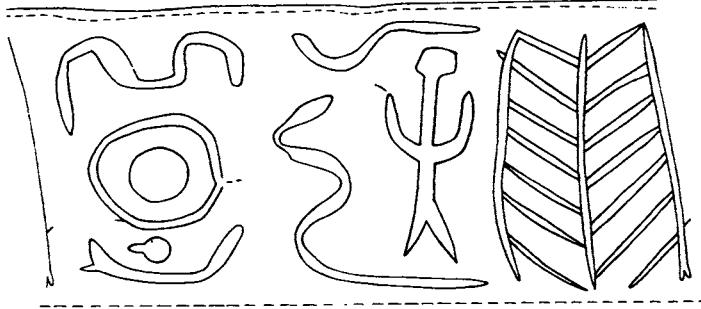
526. Chagar Bazar



527. TD / HH



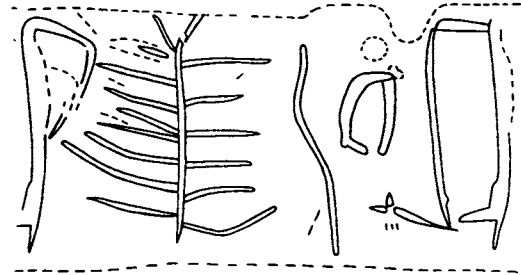
528. CH



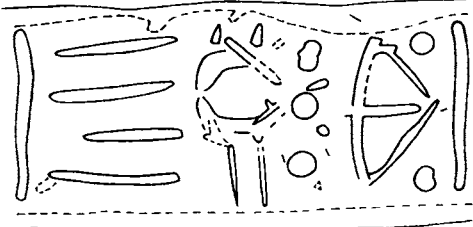
529. Tell Jidleh



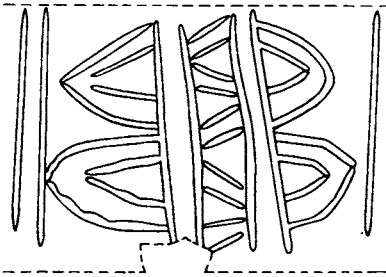
530. FS



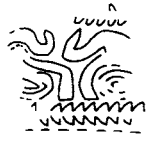
531. ER



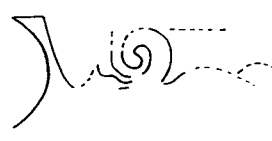
532. Bought Khabur



533. No provenance



534. CH



535. SS Main, fill



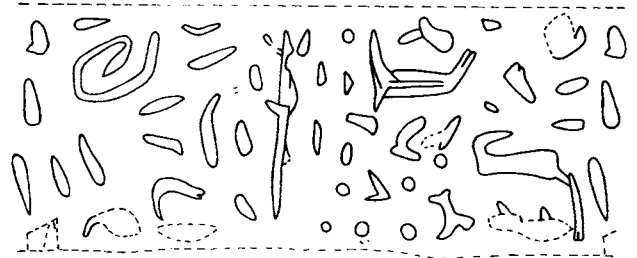
536. FS, below level 3



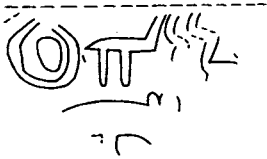
537. SS Main, fill



538. SS



539. No provenance



(a) 540. No provenance



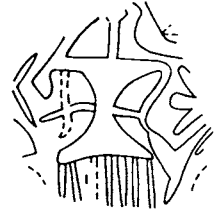
(b)



541. ER



542. JNP



543. CH



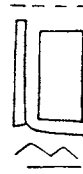
544. ST



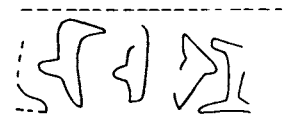
545. FS 5, above floor



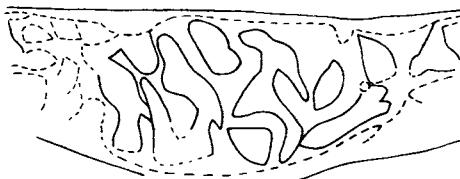
546. Brak



547. Eye T. shafts



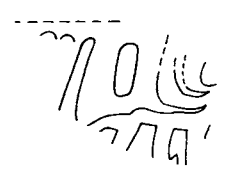
548. Eye T. shafts



549. JNP



550. Near HH



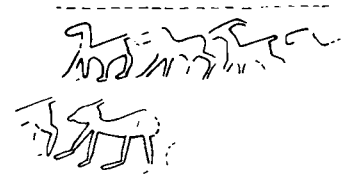
551. CH



552. FS, below level 5



553. No provenance



554. ER



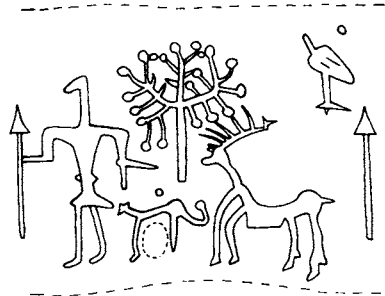
555. JNP



556. ER



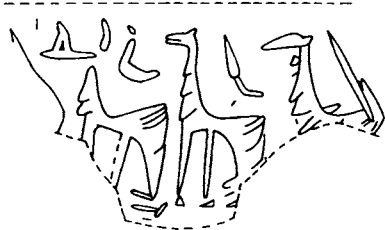
557. CH



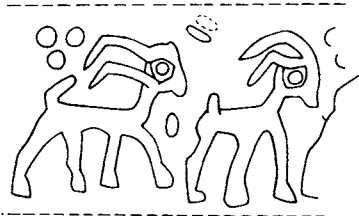
558. SS Main, floor



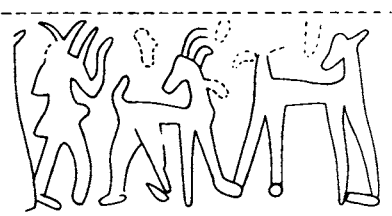
559. JNP



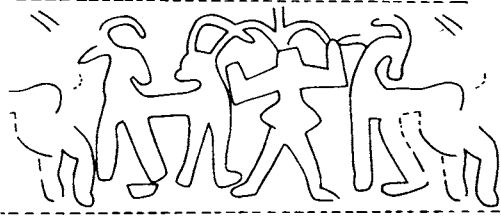
560. JNP



561. CH



562. FS



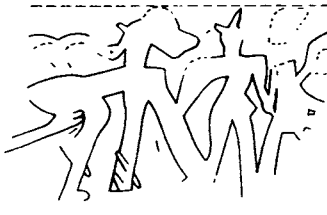
563. JNP



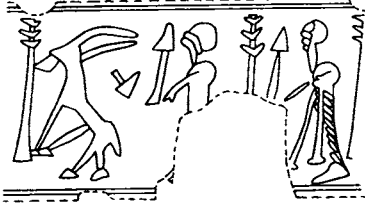
564. ER



565. JNP



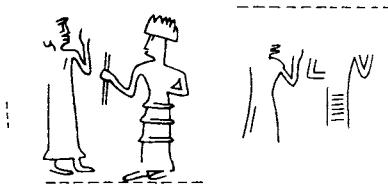
566. Kish



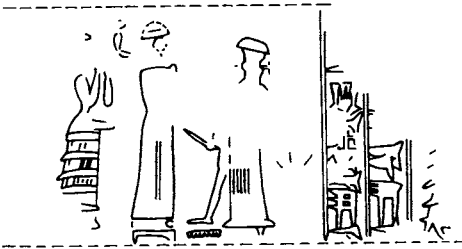
567. No provenance



568. Chagar Bazar



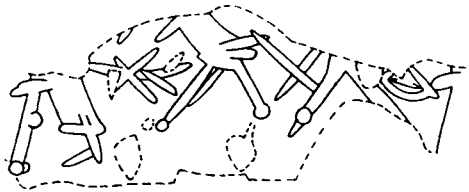
569. No provenance



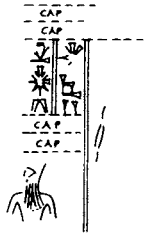
570. Chagar Bazar



571. Chagar Bazar



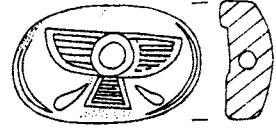
574. Chagar Bazar



572. No provenance



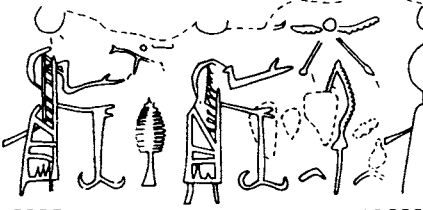
573. Chagar Bazar



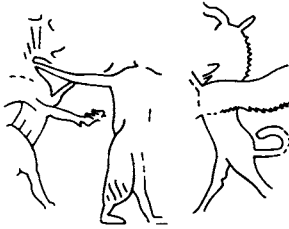
575. JNP



(a) 576. Tell al-Ma'az



(b)



577. CH / [FNP]



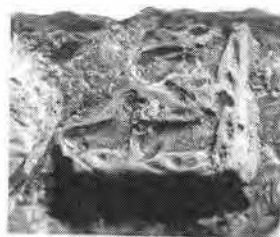
2. Chagar Bazar



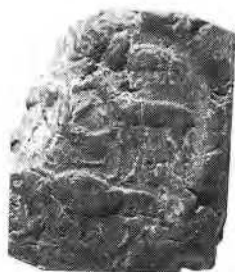
15. JNP



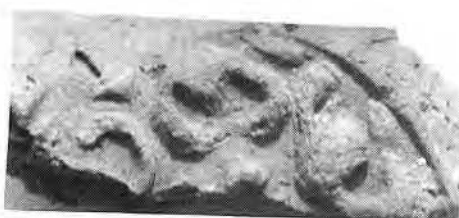
16. JNP / Eye T. area



18. No provenance



20. [FNP]



23. Tell Kashkashok



29. Eye T. shafts



30. "Donkey Hill"



31. JNP



37. Eye T. shafts



38. Eye T. shafts



39. No provenance



40. CH? / Eye T. area



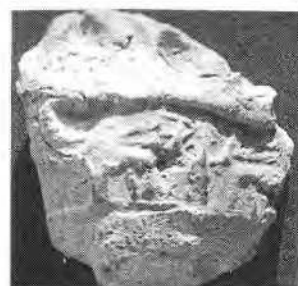
41. JNP



42. Eye T. area



44. JNP



45. FS under level 3



46. JNP



50. JNP



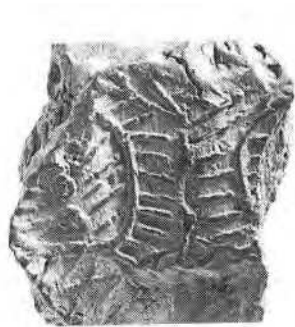
51. Eye Temple



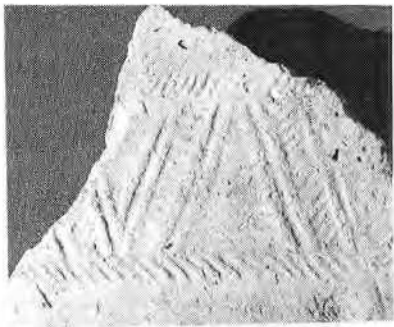
52. Chagar Bazar?



53. FS 3 fill



55. WC



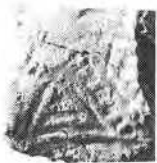
58. ST



54. SS



59. JNP



60. ST



67. JNP



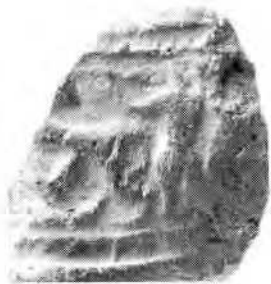
68. JNP



70. TD



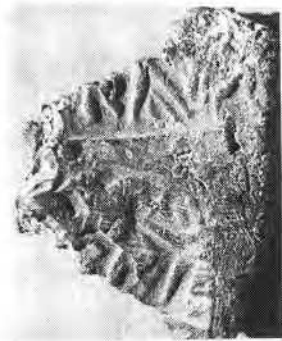
71. Eye T. shafts



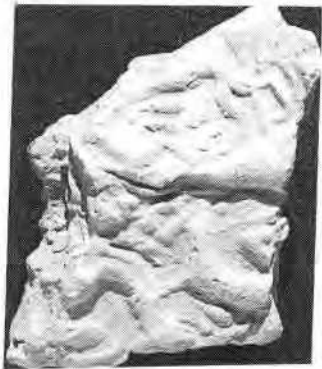
73. JNP



74. JNP



75. ST

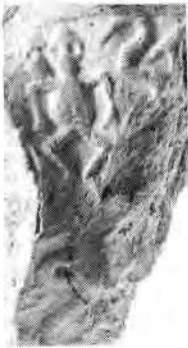


77. Brak

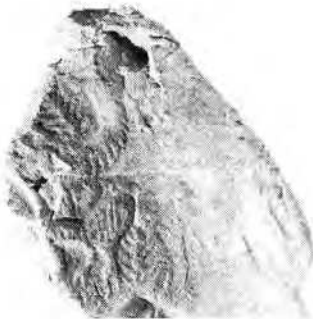


80. CH

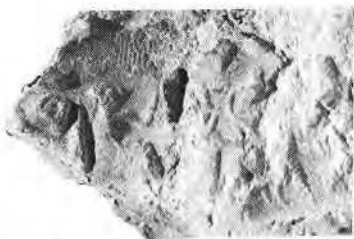
(a)



(b)



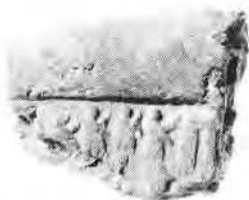
80. SS Main, floor



81. SS



82. [SS]



84. ER



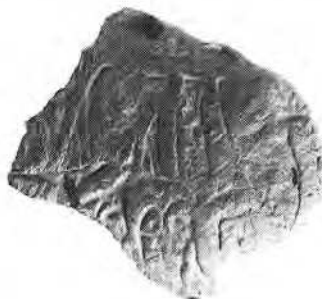
85. JNP



86. [FNP]



87. Eye T. area



88. Eye T. shafts



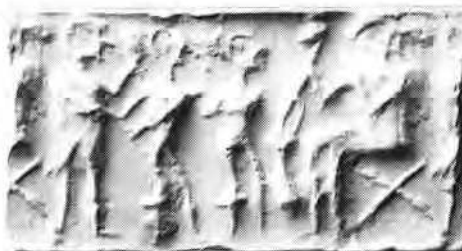
89. JNP



90. ER



91. JNP



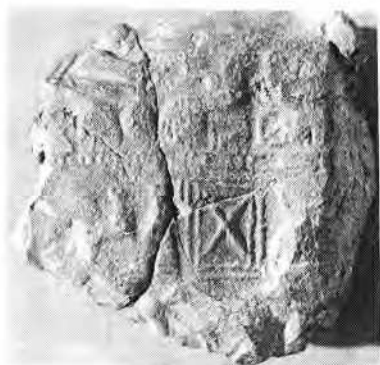
92. Eye T. area / WP?



94. Eye T. shafts



93. SS Main, above floor



95. CH 6



96. SS



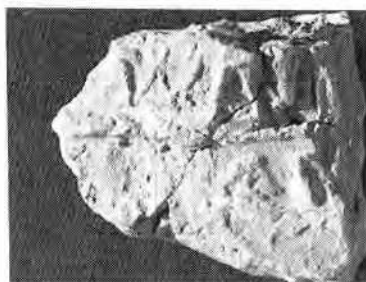
98. CH 3



100. LT



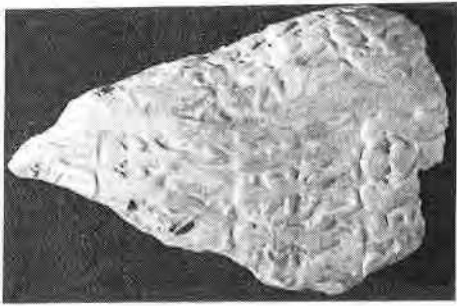
99. FS under level 3



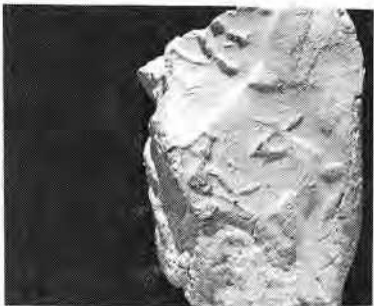
102. SS Main, above floor



103. JNP



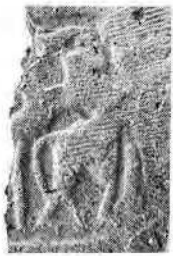
104. CH under level 9



107. SS Main, above floor



108. JNP



113. ER 4



114. CH



117. SS Main, fill



121. ST



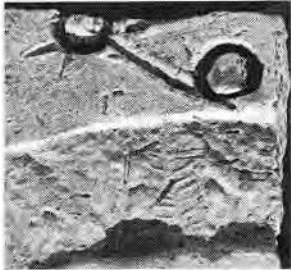
122. ER



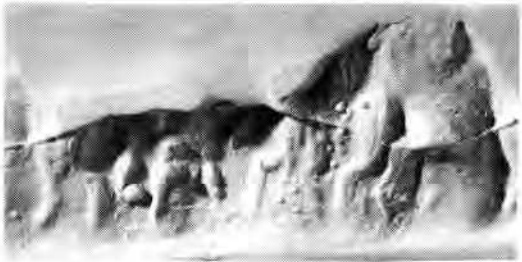
123. ER



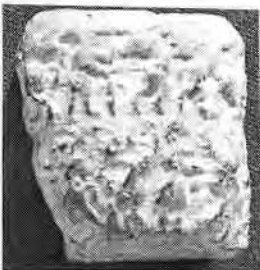
124. No provenance



126. SS Main, fill



128. T. Arbit / T. Turzi?



133. Near FS



135. JNP



137. SS Main, fill



138. CH 6



139. FS, below level 5



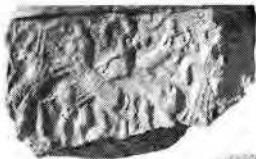
140. Near HH



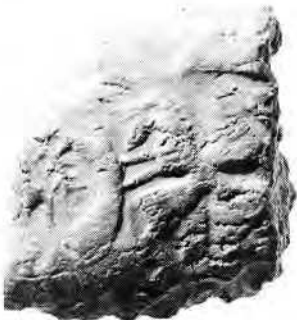
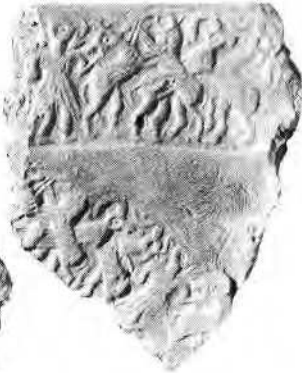
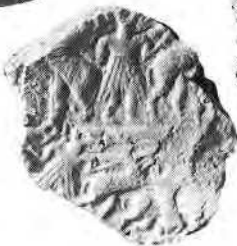
141. ER



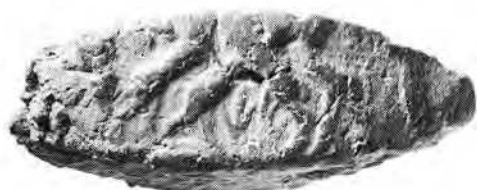
142. ER



143. SS Main, floor



144. ER



145. CH



146. Chagar Bazar



147. ER 4



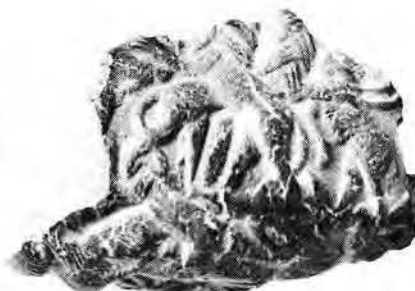
149. Brak



150. ST



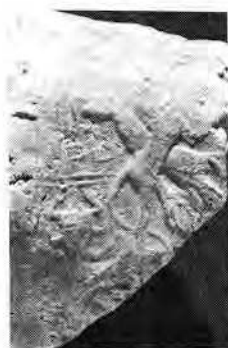
152. CH 6



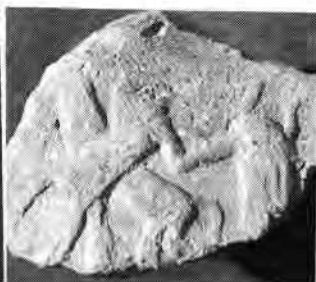
153. JNP



154. ST



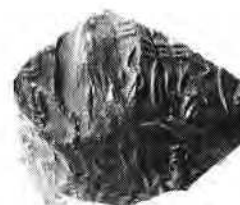
(a) 156. SS Main, above floor



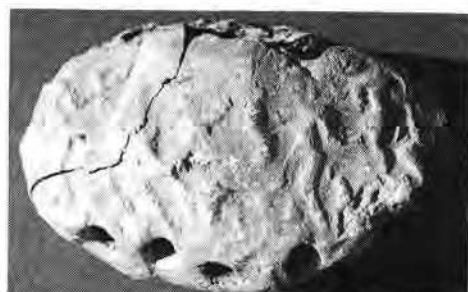
(b)



157. JNP



158. JNP



164. FS 3, fill



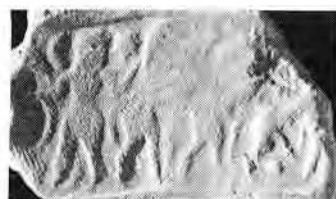
166. SS



167. No provenance



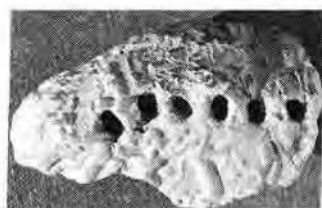
168. SS



170. FS 5, above floor



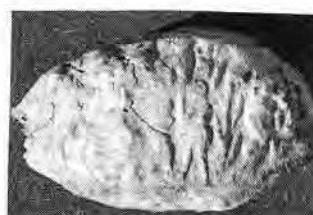
171. Brak



172. FS 5, above floor



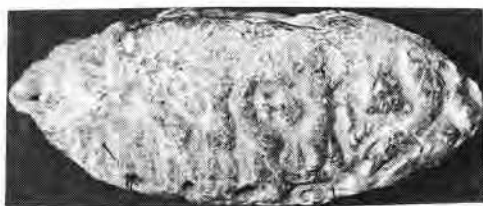
173. SS



175. FS 5, above floor



176. JNP



180. CH 6



182. JNP



183. FS 5, above floor



184. CH 6



185. SS Main, floor



186. SS Main, fill



191. WP?



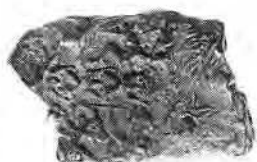
193. CH



195. CH



196. Eye T. shafts



197. CH



(a)

201. SS main, floor



(b)



205. [FNP]



207. SS Main, floor



208. Near TC

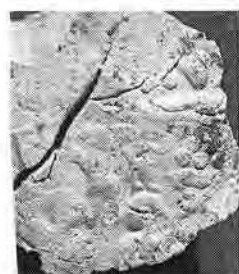


(a)

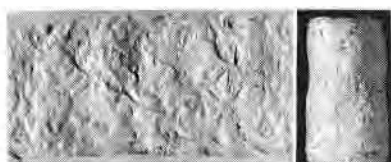
211. SS Main, floor



(b)



212. SS Main, floor



213. FS 3, floor



214. SS Main, fill



216. ER



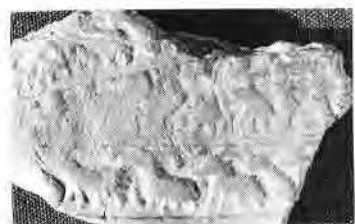
217. [FNP]



218. CH



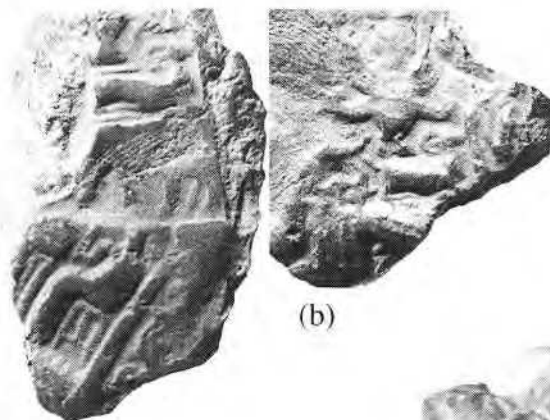
219. Chagar Bazar



221. FS 5, fill



224. ER



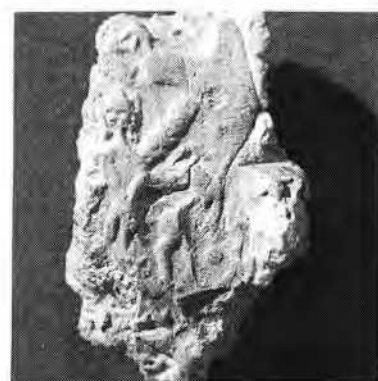
(a) 225. Eye T. shafts



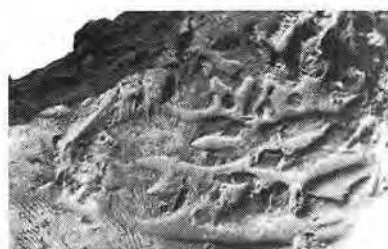
226. SS Main, fill



228. SS



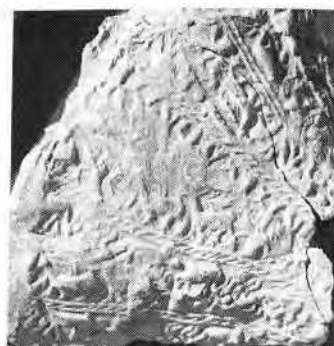
231. SS, under Main floor



229. ER



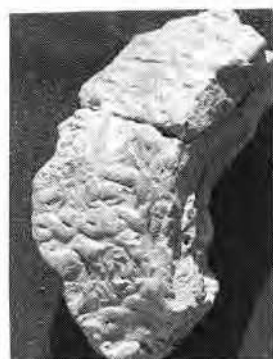
230. JNP



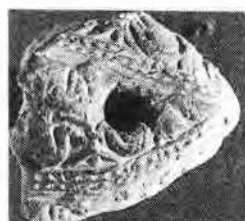
233. SS Main, floor



232. JNP



234. SS Main, fill



235. Near HH



236. CH



237. ER



238. JNP



239. CH



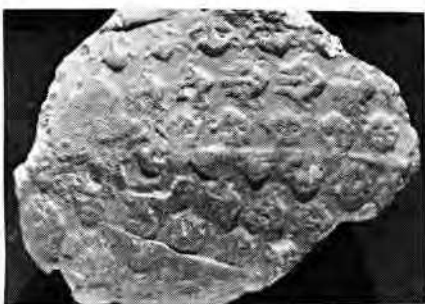
240. SS Main, floor



241. SS Main, above floor



242. SS Main, floor



243. SS Main, floor



244. Eye T. shafts



(a) 245. JNP / SS Main, floor



(b)



(c)



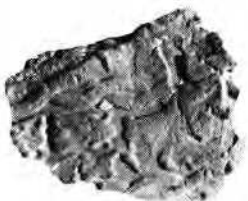
(d)



248. ER



250. JNP



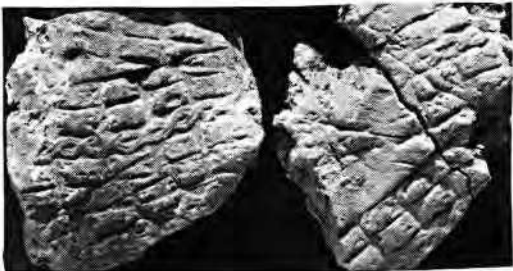
252. JNP



253. FS 5, above floor



254. ER



255. SS Main, floor



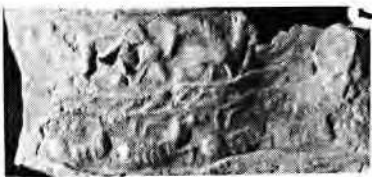
257. FS 5, above floor



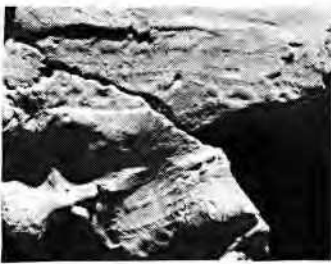
260. JNP



258. SS Main, floor



261. SS Main, floor



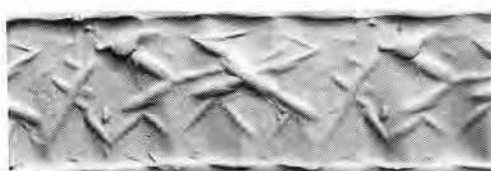
262. FS 2



263. ER 2



264. SS



266. JNP



268. JNP



269. FS



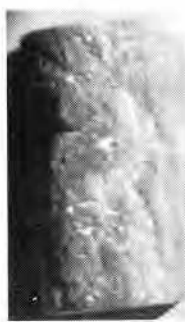
270. JNP



271. ER



273. Brak



274. SS Main, floor



276. FS



278. FS



279. JNP



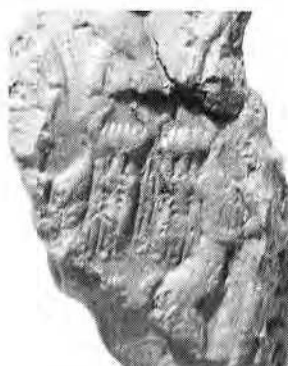
280. CH / [FNP]



281. JNP



282. SS



283. Brak?



284. JNP



287. JNP



288. ER



289. JNP



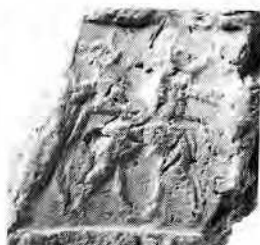
291. WP



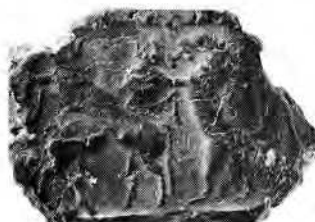
293. JNP



295. FS



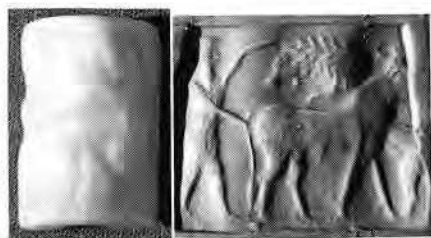
296. JNP



297. JNP



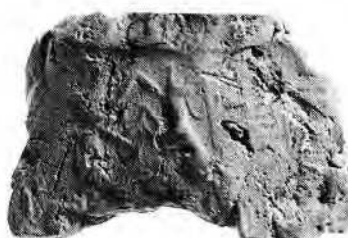
298. JNP / CH



299. SS



302. SS Main,
above floor



303. ER



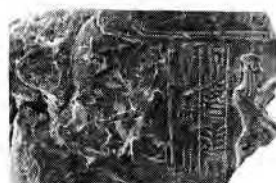
305. JNP



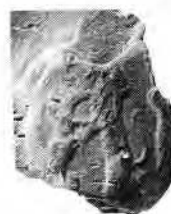
306. JNP



307. FS



308. ER



309. JNP



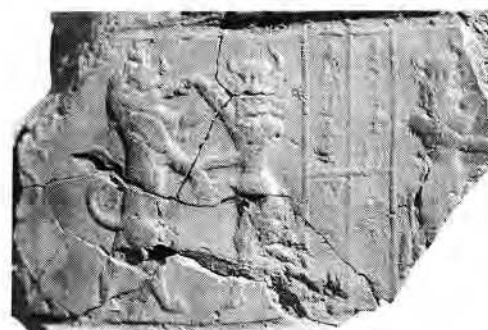
310. ER



312. JNP



313. No provenance



316. JNP



317. FS 4



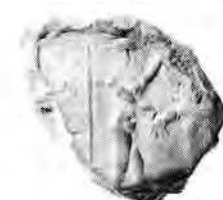
318. FS



321. JNP



319. WP / JNP



320. ER



322. FNP



323. ER



324. JNP



326. JNP



327. JNP



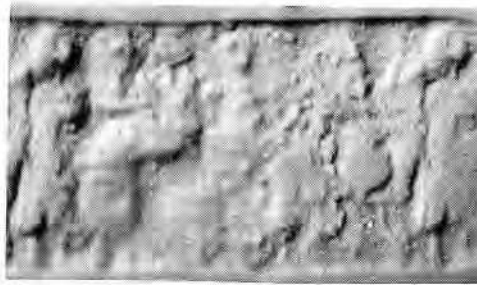
328. JNP
388. JNP



329. JNP



330. JNP



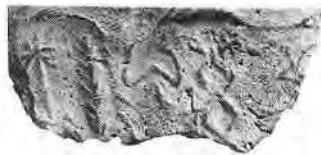
334. JNP



335. WP / JNP



337. Brak?



338. JNP / Eye T. area



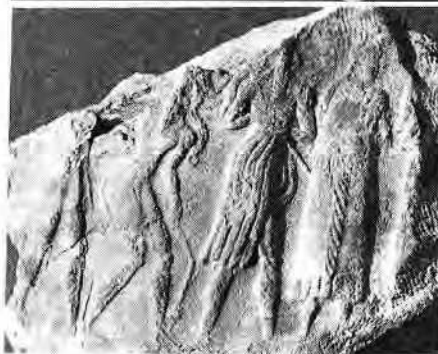
339. Brak?



343. Chagar Bazar



344. SS



346. SS Main, floor



347. SS



350. CH



351. [JNP]



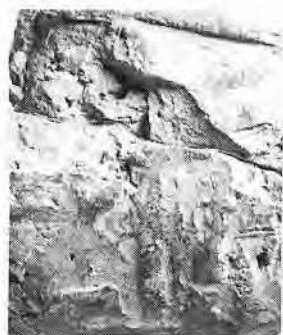
352. JNP



353. JNP



355. JNP/CH



356. JNP



354. FS 2/3



357. CH



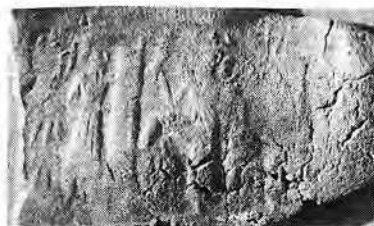
358. [FNP]



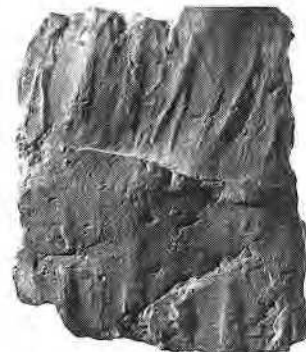
359. CH



360. JNP



362. SS



364. JNP



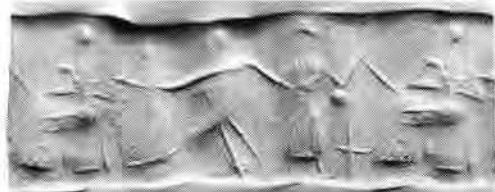
363. SS



367. ER



368. JNP



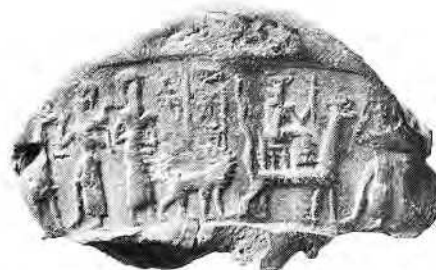
365. Chagar Bazar



(a) 369. ER



(b)



370. JNP



371. JNP



372. JNP



(a) 373. ER



(b)



374. JNP



376. FS 4?



375. JNP



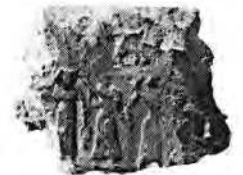
377. FS 2



378. JNP



380. JNP



382. WP



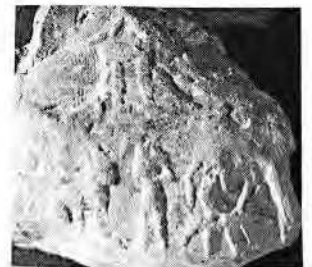
379. Brak?



381. Brak?



383. DH



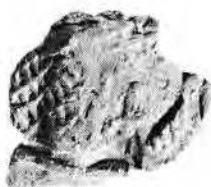
384. Near FS



385. CH



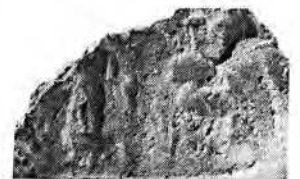
389. JNP



390. JNP



391. CH



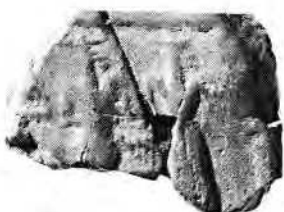
392. No provenance



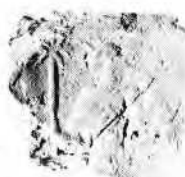
393. ER



394. ER



395. JNP



397. WP



398. ER



399. FNP



400. CH



401. JNP

LV



402. CH



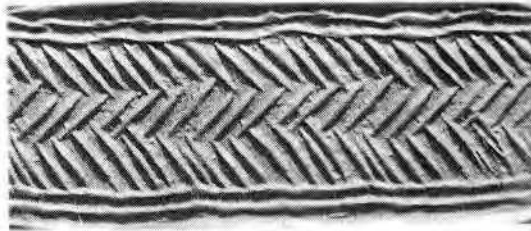
404. Tell Kashkashok



406. TW



408. JNP



410. Tell Abu Hujeira



412. CH



413. SS, below Main level



414. Eye T. area



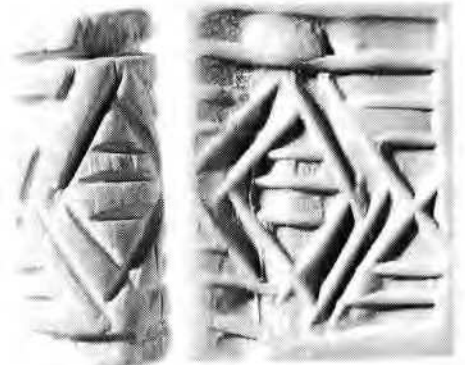
415. JNP



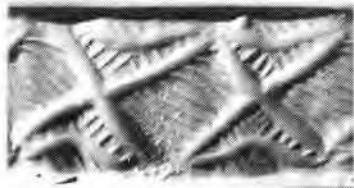
416. Brak



417. TW



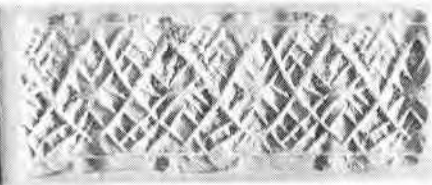
419. Chagar Bazar?



422. Eye T. shafts



423. SS



426. SS Main, floor



428. Chagar Bazar



431. Eye T. area



433. Eye T. area



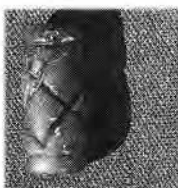
434. Eye T. shafts



435. ST



436. Eye T. area



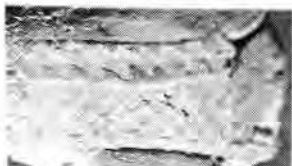
441. SS Main, floor



443. FS 2



447. WP



448. SS



451. ER



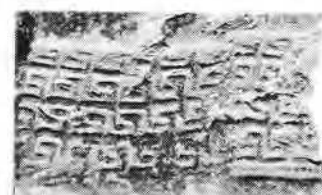
452. Brak



453. JNP?



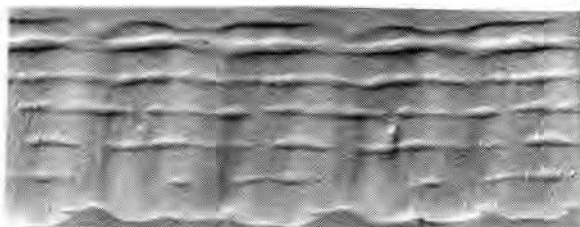
454. ER 4



456. ER



457. Eye T. shafts



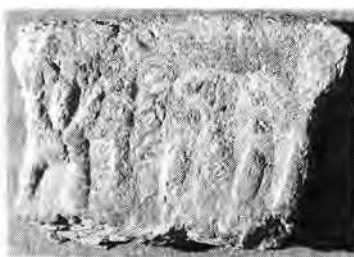
458. No provenance



464. FS



468. SS



471. CH 5



476. ER



473. JNP



474. Brak



477. Chagar Bazar



478. CH, below level 6



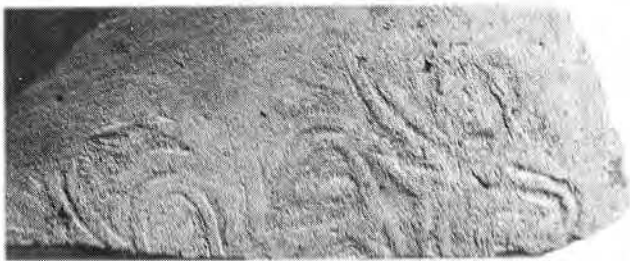
479. TW



480. ST



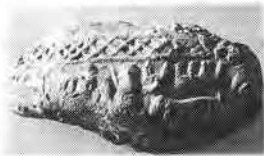
481. Near HH



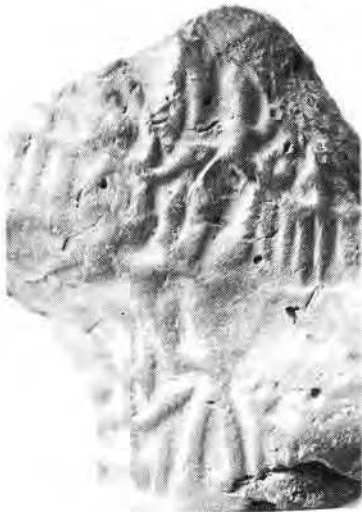
482. Tell Kashkashok



483. Tell Arbit



484. CH 6



486. JNP



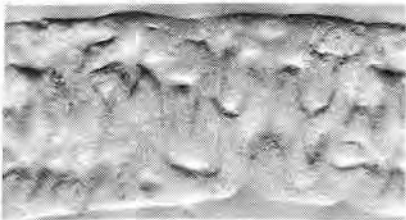
488. ST



489. SS Main, floor



485. Eye T. shafts



490. Brak?



492. Chagar Bazar



493. ST



496. ST



498. FS



499. Brak?



500. Tell Mozan



501. Brak



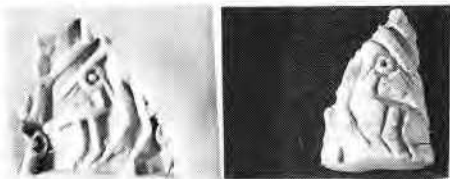
504. Brak?



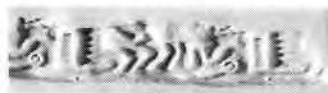
502. SS



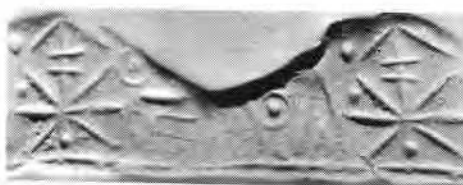
503. FS 2/3



505. SS Main, floor



506. SS Main, fill



507. JNP



509. TD



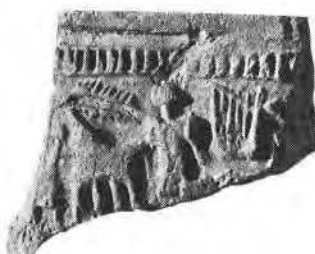
510. ER



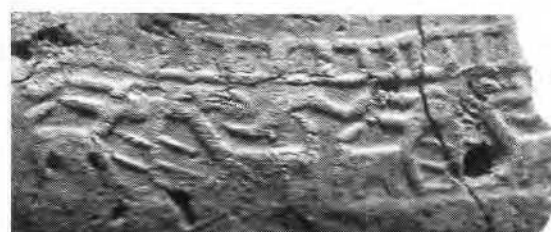
511. ER



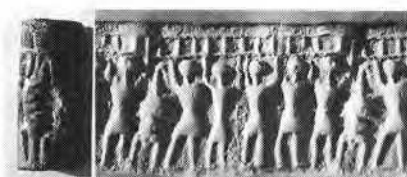
512. JNP



514. ST



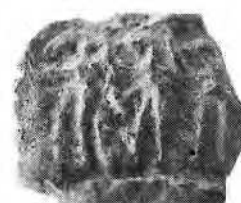
515. Tell Abu Hujeira



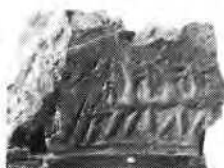
517. CH 6



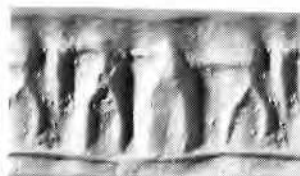
518. Chagar Bazar



519. Brak



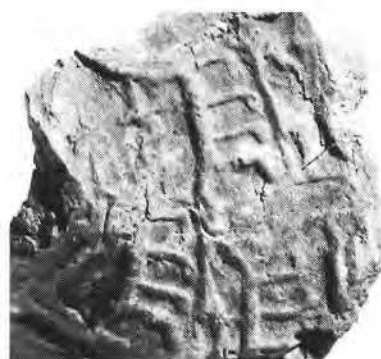
520. No provenance



523. TD



525. Tell Abu Hujeira



526. Chagar Bazar



527. TD / HH



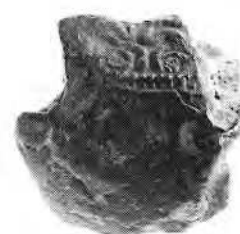
528. CH



531. ER



533. No provenance



534. CH



539. No provenance



542. JNP



547. Eye T. shafts



548. Eye T. shafts



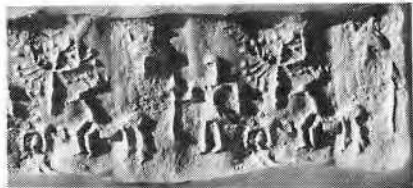
555. JNP
62. JNP



556. ER



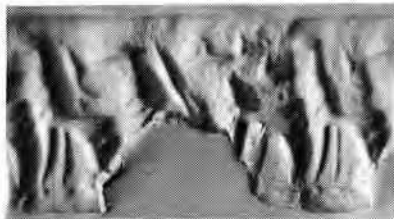
557. CH



558. SS Main, floor



559. JNP



560. JNP



561. CH



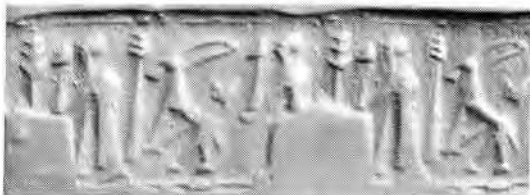
562. FS



564. ER



566. Kish



567. No provenance



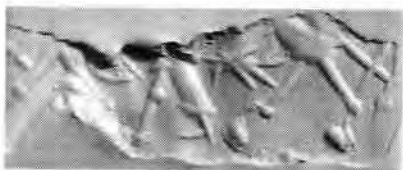
568. Chagar Bazar



570. Chagar Bazar



571. Chagar Bazar



574. Chagar Bazar



576. Tell al-Ma'az

Summary

This book is the most comprehensive treatment of the art of Syria in the third millennium BC. It is also the first book-length publication of material from the British excavations at Tell Brak (1976–1993). It is a catalogue of nearly 600 seals from Tell Brak (more than ten times as many as are available from any contemporary Syrian site), combined with a general study of the comparative material. It is both a basic work of reference and a new synthesis of the Syrian Early Bronze Age.

The Brak material is published with drawings and photographs and a full discussion of the designs, provenances and functions of the seals. About 900 seals of this date are known from other sources in Syria and northern Iraq. A comprehensive list arranged by style and date is provided. The chronology depends on a complex interaction of evidence from pottery and from seals which were imported from Babylonia. The most thorough recent discussion of this evidence is included, which enables the first detailed assessment of the development of Early Bronze Syrian art to be made. This shows how art contributed to the rise of civilisation in Syria, and how Babylonian forms were selected and adapted several times in different Syrian contexts.